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ABSTRACT

This guide to mainstreaming preschoolers with orthopedic handicaps is one of a series of eight manuals on mainstreaming preschoolers developed by Project Head Start. The guide is addressed to parents, teachers, and other professionals and paraprofessionals. Chapter I presents information on the meaning, benefits and implementation of mainstreaming. The role of the teacher in mainstreaming is discussed, and sources of assistance are listed. Chapter II discusses local and regional resources and provides specialists (occupational therapists, orthpedist, physical therapist, etc.) who work with handicapped children. Chapter III focuses on parent/teacher cooperation. Chapter IV discusses various kinds of orthopedic handicaps (such as cerebral palsy, spinal cord damage, arthritis, muscular dystrophy), and associated problems, and ways of recognizing problems for referral. Chapter V discusses how orthopedic handicaps can affect a child's functioning and learning. Chapter VI focuses on planning, arranging classrooms and teaching mainstreamed orthopedically handicapped children. Chapter VII presents information on professionals, organizations and other sources of help. Notes on screening and diagnosis are appended. (CM)

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Children with Orthopedic Handicaps

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Special Message to Parents

This book is meant to help parents as well as teachers understand mainstreaming and orthopedic handicaps. Chapter 3 describes specific ways in which parents can help their orthopedically handicapped child. But parents will find the other chapters useful in learning more about development in orthopedically handicapped youngsters, techniques and activities to promote learning, how Head Start functions in serving handicapped children, and what resources outside of Head Start are available to help fill their child's special needs.

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Mainstreaming Preschoolers:

Children with Orthopedic Handicaps

A Guide for Teachers, Parents, and Others Who Work with Orthopedically Handicapped Preschoolers

by

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Much of the credit for the success of this book is due to the team responsible for the visual and stylistic aspects. Their creative efforts were essential, and we are very grateful. The skill and enthusiasm of the production staff, on which we have relied so frequently in the past, were demonstrated even more impressively in this difficult and complex effort.

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Preface

Project Head Start was initially conceived and launched as a national program of comprehensive developmental services for preschool children from low-income families. The early design also indicated that the comprehensive program should be tailored to the needs of the individual community and of the individual child.

The Head Start Program Performance Standards require local programs to develop an educational plan that provides procedures for ongoing observation, recording, and evaluation of each child's growth and development for the purpose of planning activities to suit individual needs. The Performance Standards also require that classroom materials and activities reflect the cultural background of the children. Thus, individualization has always been a major thrust of the Head Start program.

The Congressional mandate to assure that not less than 10 percent of enrollment opportunities in Head Start be available for handicapped children presented special opportunities and challenges to Head Start programs to further their efforts in the individualization of services. Head Start classes are small, making it possible for teachers, working with a professional diagnostic team, to design a program to meet the special needs and capabilities of each child.

Mainstreaming handicapped children into classrooms with non-handicaped children has become a major activity for Head Start. However, teachers and other staff are continually asking for assistance in mainstreaming a child with a specific handicapping condition. This series of eight manuals, **Mainstreaming Preschoolers**, was prepared by ACYF to help meet this need.

The series was developed through extensive collaboration with many persons and organizations. Under contract with Contract Research Corporation, teams of national experts and Head Start teachers came together to develop each of the manuals. At the same time, the major national professional and voluntary associations concerned with handicapped children were asked to critique the materials during their various stages of development. Their response was enthusiastic. Various federal agencies concerned with handicapped persons — the Bureau of Education for the Handicapped, the President's Committee on Mental Retardation, the Office of Developmental Disabilities, the National Institute of Mental Health, the Office of Handicapped Individuals, National Institute of Child Health and Human Development/National Institute of Health, and Medicaid/Early and Periodic Screening, Diagnosis, and Treatment — also enthusiastically reviewed the materials as they were being developed. Finally, drafts of each of the manuals were reviewed by teachers, paraprofessionals, parents, social service and health personnel, and various other specialists in Head Start programs across the country.

It is hoped that this series will be helpful to the variety of people beyond the Head Start community — in public schools, day care centers, nursery schools, and other child care programs — who are involved in providing educational opportunities and learning experiences to handicapped children during the preschool years.

Blandina Cardenas, Ed.D.
Commissioner
Administration for
Children, Youth and Families

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2 Introduction

The Purpose of This Book

This book was written for teachers, parents, and others, such as diagnosticians and therapists, who work directly with orthopedically handicapped preschoolers. It provides some good ideas for helping handicapped children learn and feel good about themselves, and answers many questions, including:

What is mainstreaming?

What are orthopedic handicaps?

How do orthopedic handicaps affect learning in three- to five-year-olds?

How can you design an individualized program for an orthopedically handicapped child?

What activities are especially useful for children with orthopedic handicaps?

How can parents help their orthopedically handicapped child?

Where can you go to seek help—people, places, and information?

The information in this book is also useful for working with all preschool children, non-handicapped as well as handicapped.

The Organization of This Book

This is one of a series of eight books on children with handicaps, written for Head Start, day care, nursery school, and other preschool staff, and parents of children with special needs. Each book is concerned with one handicapping condition. The other seven books address:

- **emotional disturbance**
- **health impairments**
- **hearing impairment**
- **learning disabilities**
- **mental retardation**
- **speech and language impairments (communication disorders)**
- **visual handicaps.**

There are certain guidelines that are similar in working with all kinds of handicapped preschoolers. These guidelines should be useful to teachers and parents who are directly involved with children with special needs. They are described in the chapters "What Is Mainstreaming?" "Parents and Teachers as Partners," "Where to Find Help in Your Area," and the sections on planning, the physical setting, and general teaching guidelines in the chapter "Mainstreaming Children with Orthopedic Handicaps." While these chapters (or sections of chapters) are largely the same in most of the books in this series, the examples and suggestions provided in each book are specific, and will help you apply the general information to a child with a particular handicap.

A Word on Words

In this book the terms **handicapped children** and **children with special needs** mean the same thing. **Orthopedic handicaps** and **physical handicaps** are used interchangeably.

Chapter 1:

What Is Mainstreaming?

1

Working and playing with other children encourages handicapped children to strive for greater achievements.

4 What Does Mainstreaming Mean?

"Mainstreaming" means helping people with handicaps live, learn, and work in typical settings where they will have the greatest opportunity to become as independent as possible. In Head Start programs, mainstreaming is defined as the integration of handicapped children and non-handicapped children in the same classroom. It gives handicapped children the chance to join in the "mainstream of life" by including them in a regular preschool experience, and gives non-handicapped children the opportunity to learn and grow by experiencing the strengths and weaknesses of their handicapped friends.

However, mainstreaming does not simply involve enrolling handicapped children in a program with non-handicapped children. Definite steps must be taken to ensure that handicapped children participate actively and fully in classroom activities. As a Head Start teacher, it is your role to take these steps.

Mainstreaming is not new to Head Start. Since its beginning, Head Start programs have included handicapped children in classrooms with non-handicapped children. The Economic Opportunity Amendments of 1972 (Public Law 92-424) required that ten percent of the Head Start enrollment in the nation be handicapped children. Two years later, the Headstart, Economic Opportunity, and Community Partnership Act of 1974 required that, by fiscal year 1976, not less than ten percent of the total number of enrollment opportunities in Head Start programs in each state be available to handicapped children. And most recently, Public Law 94-142, the Education for All Handicapped Children Act, has mandated that the public schools provide "free, appropriate education" in the "least restrictive setting" for handicapped children from 3 to 21 years of age. Thus, mainstreaming has become an important and well-accepted approach in the education of young handicapped children.

It is the function of Head Start programs to:

> **serve handicapped children in an integrated setting or mainstream environment with other children; provide for the special needs of the handicapped child; and work closely with other agencies and organizations serving handicapped children in order to identify handicapped children, and provide the full range of services necessary to meet the child's developmental needs.**
> **(Head Start Transmittal Notice 75.11—9/11/75.)**

Research on children has shown over and over that the early years of life are critical for learning and growth. It is during this time that children's cognitive, communicative, social, and emotional development can be most influenced. If special needs are recognized and met during these years, handicapped children will have a much better chance of becoming competent and independent adults. Handicapped youngsters who are given the opportunity to play with other children in the Head Start classroom learn more about themselves and how to cope with the give and take of everyday life. This is one of the first steps toward developing independence. By participating in regular preschool settings that are able to provide for special needs, with teachers who know how to adapt teaching techniques and activities, children with special needs will truly have a "head start" in achieving their fullest potential.

1

Benefits of Mainstreaming

There are many benefits to mainstreaming—benefits that affect both handicapped and non-handicapped children, as well as their parents and teachers.

Mainstreaming Helps Handicapped Children

Participating in a mainstream classroom as a welcome member of the class teaches children with special needs self-reliance and helps them master new skills. For some, it may be the first time in their lives that they are expected to do for themselves the things they are capable of doing. Working and playing with other children encourage handicapped children to strive for greater achievements. Working toward greater achievements helps them develop a healthy and positive self-concept.

Mainstreaming can be an especially valuable method for discovering undiagnosed handicaps. Some handicaps don't become evident until after a child enters elementary school, and by then much important learning time has been lost. A preschool teacher is able to observe and compare many children of the same age, which makes it easier to spot problems that may signal a handicap. Preschool may therefore be the first chance some children get to receive the services they need.

Mainstreaming Helps Non-Handicapped Children

Mainstreaming can help non-handicapped children, too. They learn to accept and be comfortable with individual differences among people. Studies have shown that children's attitudes toward handicapped children become more positive when they have the opportunity to play together regularly. They learn that handicapped children, just like themselves, can do some things better than others. In a mainstream classroom they have the opportunity to make friends with many different individuals.

Mainstreaming Helps Parents

Mainstreaming is also good for the parents of children with special needs. With you, the other members of the staff, and specialists sharing the responsibility for teaching a child, the parents come to feel less isolated. They can learn new ways to help their own child. As they watch their child progress and interact with non-handicapped children, parents are helped to think about the child more realistically. They will see that some of the behavior they are concerned about is probably typical of all young children, not just children with handicaps. In these ways, parents come to feel better about their children and themselves.

Mainstreaming Helps Teachers

Mainstreaming also has advantages for you. You have the chance to make a significant impact on a handicapped child. The techniques you develop for working with a child with special needs are just as useful with non-handicapped children who have minor weaknesses in the same areas.

In fact, many of the most effective teaching techniques known were first developed for handicapped children. Finally, working with handicapped children is a chance to broaden both your teaching and personal experience.

6 How Is Mainstreaming Carried Out?

Mainstreaming can be carried out in a variety of ways. How you decide to mainstream a particular handicapped child will depend upon the child's strengths, weaknesses, and needs, and will also depend upon the parents, the staff and resources within your program, and the resources within your community. As you know, every child is an individual with different needs and abilities. This is just as true for handicapped children: they display a broad range of behavior and abilities.

Some handicapped children may thrive in a full-day program with non-handicapped children. Others will do best in a mainstream environment for only part of the time, attending special classes or staying at home for the rest of the day. For still others, mainstreaming may not be the most helpful approach. The principle to follow is that handicapped children should be placed in the "least restrictive environment." This means that the preschool experiences of handicapped children should be as close as possible to those of non-handicapped children, while still meeting the special needs created by their handicaps.

Mainstreaming involves the efforts of many people working as a team—teachers, the child's parents, Head Start staff (in health, education, handicap, parent involvement, and social services), other specialists providing consultant services on a full- or part-time basis, agencies serving handicapped children, and the public schools in the community. The identification, development, and coordination of this team effort is both a challenge and a critical requirement in meeting the needs of a handicapped child.

As you and your program staff get to know each child, and as you work with the child's parents and specialists in your community's agencies and public schools, you will be able to decide what is best for each child. This book describes *how* mainstreaming can be carried out by the parent/Head Start/specialist team in order to provide the best program for both handicapped and non-handicapped children.

This book also discusses different kinds of conditions resulting in physical handicaps, and describes some of the things children with such handicaps can do as well as other children and things they may have some trouble doing. There is general information on the special equipment used by some orthopedically handicapped children, and on ways to arrange the classroom and modify equipment to enable orthopedically handicapped children to participate fully in classroom activities. Also included are general teaching guidelines and ways to modify specific activities for use with orthopedically handicapped children.

What Is Your Role in Mainstreaming?

This book approaches mainstreaming from the standpoint of child development. It emphasizes the importance of seeing handicapped children first and foremost as children, with the same needs all children have for love, acceptance, exploration, and a sense of competence. By understanding how all children develop and learn you can better understand the effects of a particular handicapping condition. For example, knowing the importance of eye-hand coordination will help you understand the effects of cerebral palsy on a child's development. You can then use this knowledge to plan appropriate activities for building on the child's strengths and working on his or her weaknesses.

The teaching techniques and activities provided in this book are designed to help develop skills in particular areas of development—motor, social, cognitive, language and speech, and self-help—and can be used with any child or group of children in your classroom, whether they are handicapped or non-handicapped.

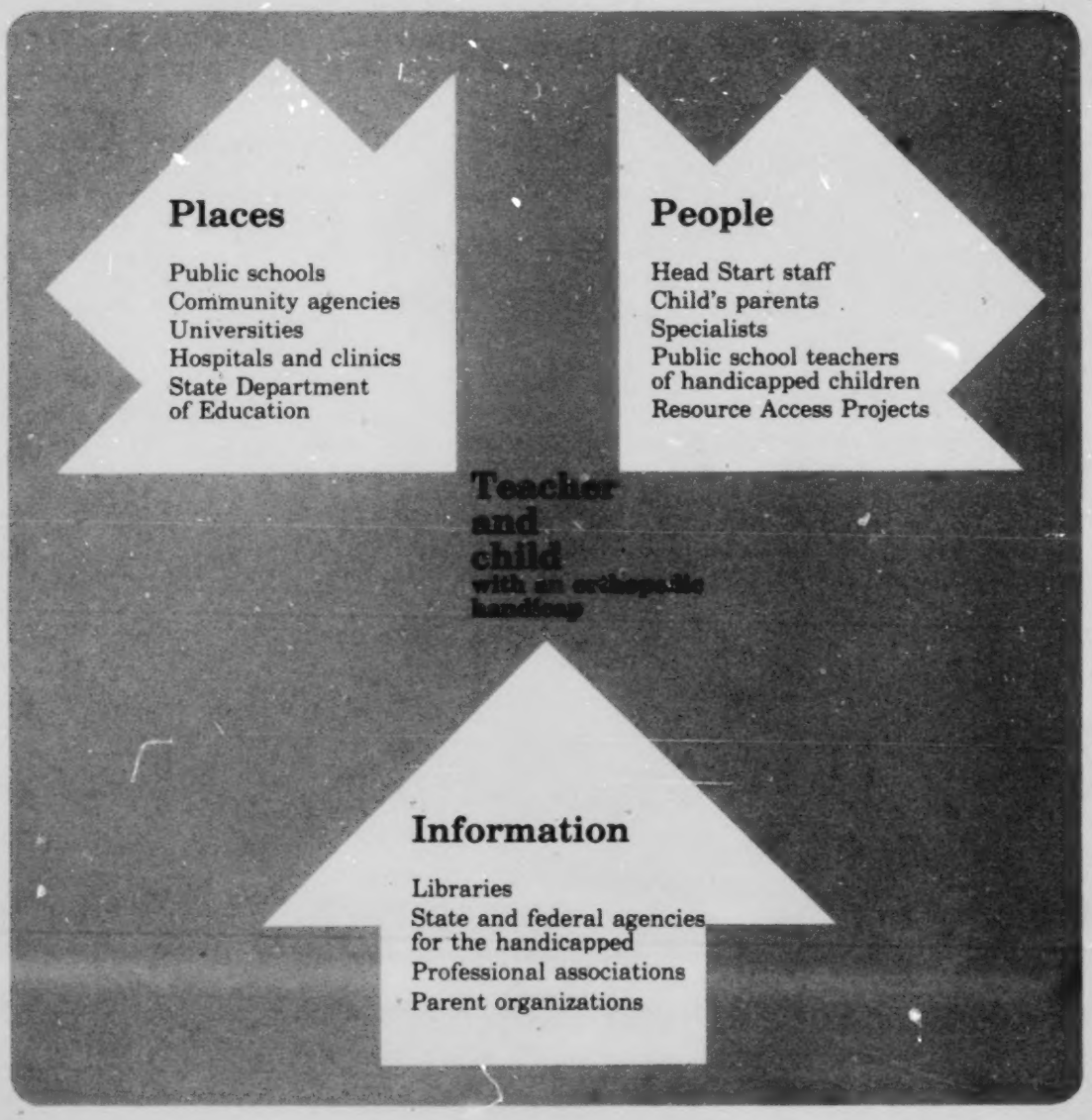
As a teacher, your role in mainstreaming includes:

- **developing and putting into effect an individualized program that meets the needs of each child in the classroom, including the special needs of a child with a handicapping condition**
- **working together with the parents of a handicapped child so that learning situations that occur in your classroom are reinforced by the parents at home**
- **finding out, through your handicap coordinator or social services coordinator, what special services a handicapped child is receiving and how you can get a specialist to help you in your classroom teaching**
- **arranging referrals through your handicap coordinator or social services coordinator for diagnostic evaluations, if you feel a child has a problem that has not been clearly identified.**

In carrying out this role, there are many resources that can be tapped to assist you. Later in the manual they will be described in more detail, but they are summarized on the following chart.

8 Where to Go for Help

There are many resources you can tap for help with a handicapped child. Take advantage of these resources by actively seeking them out. For detailed information on Head Start and other resources in your area, see Chapter 2. For detailed information on national professional and parent associations and agencies, and a list of helpful materials, see Chapter 7.



Chapter 2:

Where to Find Help in Your Area

2

There will be persons in your Head Start Program who are trained to help you work with handicapped children.

10 ***The education of handicapped children in a regular classroom is not a solo effort. As you have already found out, or soon will, it requires the involvement and cooperation of many people with different kinds of skills and knowledge. You are the primary planner of each child's daily educational program and the person who is central in carrying it out. But it will help you and children with special needs if you can identify and work with specialists in your program and in your community. You and the specialists can achieve more working as a team than as individuals. This chapter discusses how to find out about local or regional resources, what they provide, how you can make the most of what's available, and the kinds of specialists you may meet as you work with handicapped children.***

In the following case studies, two teachers found they needed special help and were able to get it.

Sean

When Miss Sanchez first learned that Sean, a child with arthritis, would be in her class, she was worried. She had never worked with a child with a physical handicap, and wondered how she would manage. Sean was a quiet, friendly child. His parents, the Moffetts, explained that most of the time Sean seemed fine. Occasionally, however, the arthritic condition would suddenly worsen, and for a few days (or sometimes weeks) Sean's knee joints would be very stiff. Understandably, Sean became very irritable at these times. During any very acute stage, Mr. and Mrs. Moffett said their son would stay at home.

Sean fit into the Head Start class well. He enjoyed being with other children and did not have to be encouraged to join in activities, even when Miss Sanchez noticed he had some stiffness. One day, Sean came in very stiff and irritable. He had a note from his mother saying that if he became too uncomfortable or grouchy, she would come get him. Miss Sanchez did not want to have Sean miss preschool, but she was at a loss as to how to help him. Sean became more and more stiff as the day progressed, especially in his knee joints, and was crying by the time he was picked up to go home.

Miss Sanchez talked with Mrs. Moffett about Sean's day. They decided that he would stay home until he improved. Mrs. Moffett also said she would ask Sean's physical therapist to meet with Miss Sanchez, to work out a preschool program for Sean on days when his arthritis was particularly bad.

The physical therapist and Miss Sanchez worked out a program of alternating rest and activity. The therapist also showed Miss Sanchez some simple knee joint exercises that all the children could do, so that Sean would not feel isolated or different. They also talked about using heat packs and planning activities using warm water, to help reduce the swelling and stiffness.

The next time Sean's condition worsened, Miss Sanchez was better prepared to help him. He was able to continue in the program with many fewer absences. Miss Sanchez kept in touch with Mrs. Moffett and the physical therapist, to report on Sean's progress and to discuss problems and what she could do about them.

Kathy

Four-year-old Kathy was bright, talkative, and outgoing. Mr. Chin found her a welcome addition to the class.

Kathy wore braces and used a walker. She was able to walk slowly from the play table, where she began each day, into the adjoining room for group singing. Kathy's mother, Mrs. Williams, had shown Mr. Chin how to help Kathy sit on the floor with the other children. Kathy was learning to unlock her own braces for sitting, but she still needed help getting from a standing to a sitting position.

Because Kathy seemed ahead of the other preschoolers in her ability to use words in sentences, Mr. Chin was surprised that her coloring was so much poorer than that of the other four-year-olds. She also had great difficulty using scissors and drawing straight or curved lines.

Although the problems seemed slight, Mr. Chin decided to get some help in planning ways to help Kathy improve her skills. The handicap coordinator suggested that an occupational therapist would know how to figure out the problem and suggest ways to correct it. With the help of Mrs. Williams, Mr. Chin made arrangements to consult with Kathy's occupational therapist. The occupational therapist suggested a number of activities to improve Kathy's eye-hand coordination and the use of two hands together. Mr. Chin and Kathy's mother discussed the ideas and worked out which ones to use at home and which to use at preschool.

12

Finding Out About Resources

To find out about resources, start by asking questions. Ask other teachers, your center director, other program staff. Then ask the people they suggest. You need some basic information about the kinds of support personnel available in your program. For example:

- Is there a **handicap coordinator,** a **health coordinator,** or a **special educator** who is familiar with orthopedic handicaps in children, and who can suggest materials, methods, and additional resources?
- Is there an **educational coordinator,** a **director of educational services,** or another **classroom teacher** who can help you make any changes in your program as needed by a child with an orthopedic handicap?
- Does the program have a **social worker** a **social services director** or a **parent involvement staff member** who can help arrange contacts with the child's family and with resources outside the program?
- Does your program have **consultants,** whether from Head Start regional office, public schools, nearby colleges or universities, community health or social services agencies, a state department of education, or local chapters of national associations serving orthopedically handicapped children? (For more information on national associations, see the section in Chapter 7 on professional and parent associations.)

Head Start Program Resources

Certain components — social services, health services, educational services, handicap services, and parent involvement — are found in Head Start programs. Programs vary greatly, however, in the number of staff members providing these services.

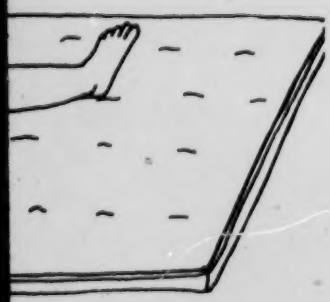
In a given program, one person may be both the social services director and the parent involvement coordinator. In another program, several people may work in each component. These staff members may be part-time or full-time. They may be a part of your program or outside consultants to your program. Their job titles may vary. It often happens that people with the same title do different jobs, or that people with different titles do the same job. A job title only gives you a small clue. You will need to find out *who* does *what, when,* and *where,* and *how you can get things going.*

Many physically handicapped children follow a regular program of physical therapy directed by physical therapists.

Social Services

Social services staff (whether a full-time director, a part-time social caseworker, or a community aide) usually coordinate contacts among a child's family, the Head Start program, and outside community resources. This person (or people) can help you put together a team of specialists to work with you and a handicapped child in your class. When necessary, the teacher and the social services person work together to arrange referrals for children and families who need diagnosis and treatment or family counseling. Social services oversee the follow-up, too, making sure appointments are made and coordinating services if several agencies are involved. It is important that you get information from the social services person about the kinds of services a child is receiving.

The social services component is an extremely valuable resource to you in your efforts to provide handicapped children with a good education in a mainstream setting.



Health Services

The health services component of the Head Start program must include medical, dental, mental health, and nutritional services. The specialists who carry out these services may work on a full-time, part-time, or consultant basis. The person responsible for coordinating all these health services can draw upon a number of services outside of the program for diagnosis and treatment. This means they can help you get health information or the services of specialists for a child. For example, an ophthalmologist or optometrist (eye specialists) may be called upon to examine a child with vision problems. An audiologist (hearing specialist) may be recruited to assess a child's hearing. A mental health professional such as a psychologist can diagnose developmental problems. Other specialists such as a neurologist (nervous system specialist), an occupational therapist (activities specialist), a physical therapist (movement specialist), or an otolaryngologist (ear, nose, and throat specialist) may be consulted when necessary.

You will want to know who in your program is responsible for contacting and coordinating health service agencies, and what your program's relationship is with the agencies. What kinds of assistance can you expect from them? What conference arrangements are being made among team members? While some agencies are more accessible than others, all Head Start programs (no matter how large or small) have or will have access to these resources, either within the program or through outside referrals.

Be sure that the parents are completely informed of any plan for services for their child, and that they give their consent.

14 ## Educational Services

This component comprises all aspects of the educational program. All Head Start programs should use the resources of local institutions of higher learning (junior colleges, colleges, universities, and university-affiliated facilities) that are available to them.

In many programs, the people who are responsible for educational services can provide guidance and advice to teachers in the classroom. This advice would include helping you to observe the child systematically, to assess a child's skills, and to develop and carry out an individualized education plan for an orthopedically handicapped child. Your center's educational director should be able to help you tailor classroom activities to meet each child's needs.

Parent Involvement

Parent involvement, a cornerstone of Head Start, encourages family participation in all aspects of the program. Head Start believes that the gains made by a child in Head Start must be understood and built upon by the child's family and by the community. To achieve parent involvement in a child's Head Start experiences, each program works toward increasing parents' understanding of their child's needs and how to satisfy them. Project Head Start is based on the premise that successful parent involvement requires parents to participate in making decisions about the program and about what kinds of activities are most helpful and important for their child.

In some Head Start programs, the parent involvement component may be combined with social services. In others, it is a separate service. Regardless of its place in the organization of your program, the people in this component are responsible for the coordination of all activities that involve the child's family.

You probably realize that the parent involvement component is especially important for families of handicapped children. Since they have lived with the child you are trying to help, they know a great deal about their child's needs and strengths. The more the home and Head Start can exchange information and work together, the better the child will do in your class.

Handicap Services

A handicap coordinator is responsible for supervising the mainstreaming of all handicapped children in the program. This person is usually familiar with special education methods and materials, and should be able to teach you how to use them in your classroom if you need help.

Many Head Start programs have a close working relationship with the local school system. The local school system may pay for specialists to work with handicapped children. Under 1975 federal legislation, Education for All Handicapped Children Act (Public Law 94-142), local school districts must provide a free public education to all handicapped children from 3 to 21 years of age. Some states have their own special education laws, which require services for children from infancy to age five as well. You will want to learn as much as you can about these laws in your own state so that you can take advantage of the services. Your local public school director of special education is a good resource for such information.

One aspect of the Education for All Handicapped Children Act that concerns Head Start teachers and parents is its outreach component. Under the law, public school systems are required to demonstrate a practical method for identifying unserved and underserved handicapped children, so that they can receive the special services they need. Called Child Find, Child Search, or Child Identification in different states, the method also varies from state to state. In some, it consists of an advertising campaign to let parents, teachers, and others know whom they should contact if they suspect a child has a handicap that has not been recognized. In other states, there is a formal program of screening and diagnosis in addition to a public awareness campaign. To take advantage of this service, which is your right under the law, call the director of special education in your local school system, the superintendent of schools in your town, or the special education section of your state's department of education.

Since the Head Start program in many states enrolls children for whom the public school system is also responsible, this means that there may be many services that the school district may be able to provide for these children in your classroom, such as free diagnoses and specialists' services. The handicap coordinator or someone else in your program should be in close contact with the public schools in your community, and should know all of the resources available and how to link up with them.

The handicap coordinator can help you find out about special materials.

16 Who Knows About Resources and Services?

The staff person in your program who is responsible for handicap services may be the best person to contact to find out about resources and services. In your community, however, there are other people who know what agencies or people provide the services you need for a child with special needs.

The special education supervisor in your public school system is one person to contact for information about local resources. It is also a good idea to contact this person to alert the school system to the special needs of a child. After all, the child will probably be starting public school after leaving Head Start.

Your local hospital may have a department called a child development unit, which deals with all sorts of developmental problems in children. Sometimes the hospitals have specialty clinics for children with particular health and developmental problems, such as orthopedic handicaps. The services the hospital can offer will vary, depending on the staff and funds they have. But the hospital will often be able to suggest other resources for you to contact.

Some states have a University Affiliated Facility, which provides direct services to handicapped children and their families. The address for this resource is given in Chapter 7, page 110.

The Resource Access Project (RAP) in your region should be contacted. RAPs are designed to link local Head Start staff with a variety of resources to meet the special needs of handicapped children. They identify all possible sources of training and technical assistance and enlist their support in helping Head Start programs find and serve handicapped children. The addresses of the RAPs are given in Chapter 7, pages 114-115.

Often, parents of school-age children with orthopedic handicaps are very knowledgeable about the resources that can be tapped. Find out if your community has an organization for parents of children with these handicaps. You could also write to the National Association of the Physically Handicapped (address given on page 112), because local parent groups are often affiliated with this organization.

How to Make the Most of Available Resources

You can make the most of available resources by taking the following steps:

1. Be Precise

Be precise about the help you need. For people to be helpful, they have to understand exactly what you need. You may want to discuss your problem first with other Head Start teachers and specialists, so that you end up with a clear idea of what you need to know.

2. Develop Objectives

With your team of specialists, develop objectives about what each of you wants to achieve in working with a particular handicapped child. That is, know what you're aiming for so you can plan activities to meet that aim, and so you will know when you have reached it.

3. Agree on Responsibilities

Work out together with the specialists what you expect from them and what they expect from you. People sometimes start out with different expectations—such as who's responsible for working with the child (the specialist or the teacher), or who's responsible for checking on whether the plan has worked. Responsibilities need to be spelled out so that an agreement can be reached.

4. Make Sure You Understand

Advice and explanations that don't tell you specifically what you can do for a child in your classroom leave you as stranded as you were before. If you don't understand, *ask*. Some specialists are used to saying things in complicated ways, and they need to be reminded to say them in plain English. Advice won't do any good if you can't use it. And if you don't understand it, you can't use it.

5. Keep in Touch

Feedback on both sides is very important. You need to know what the specialists are doing for the child and how the child is progressing. The specialists need to know what the child is doing in your classroom and how the child is progressing. And everyone—the parents, the specialists, and you—needs to know what everyone else is dong, so that the services can be coordinated. Otherwise, two specialists could be providing the same services for a child—or even worse, no one could be providing them.

Feedback won't happen by itself. Plan a schedule of contacts—such as meetings and phone calls—and hold yourself and the specialists responsible for sticking to it.

6. Consider Parents Specialists

Work with parents in the same way that you work with specialists. Parents are specialists on their own child's needs, strengths, problems, likes, and dislikes. Furthermore, like working with specialists, working with parents involves agreed-upon objectives, knowing what each of you is doing, knowing how the child is progressing, and regular contact.

7. Expect a Lot

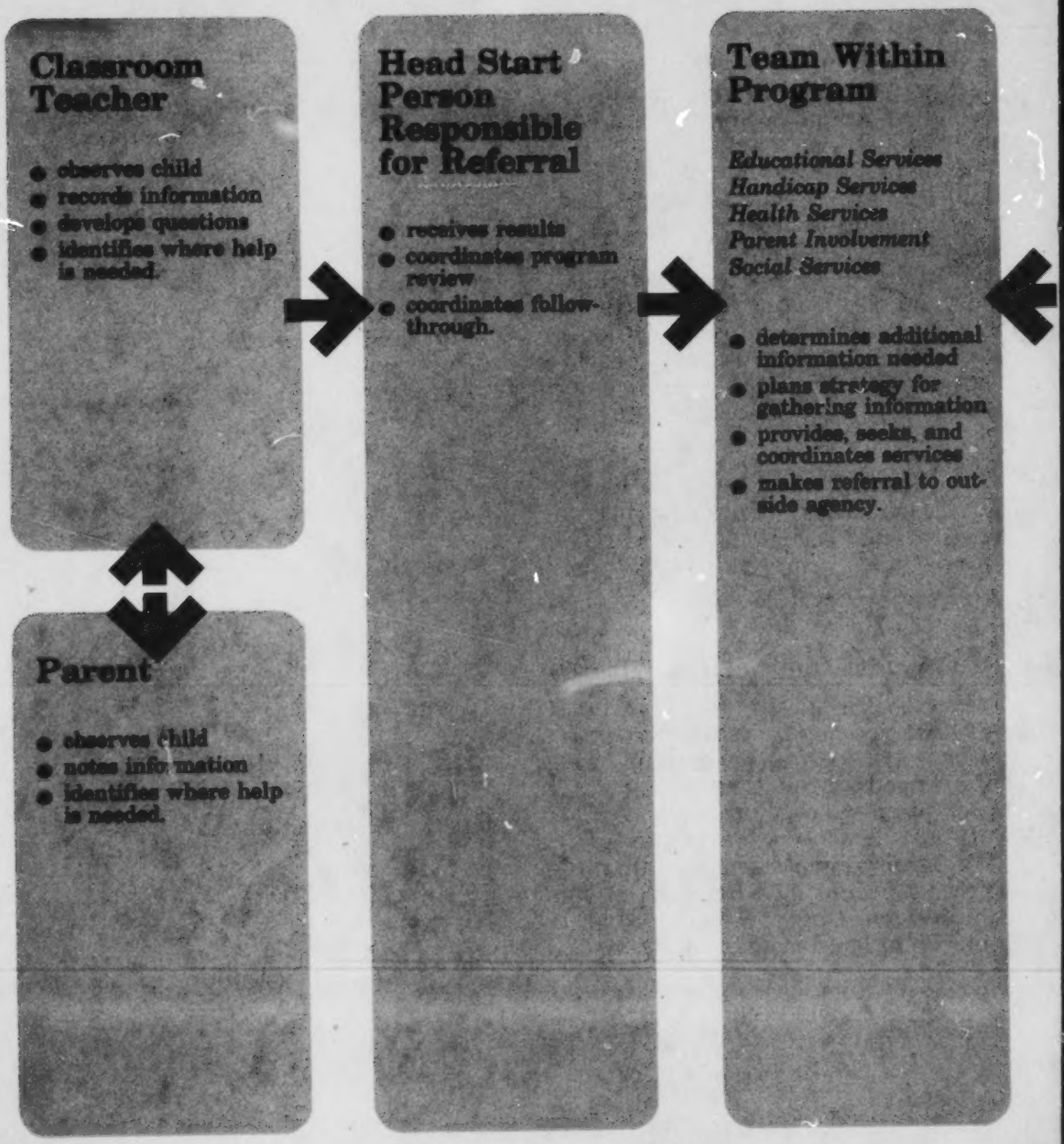
You will be working with a child who has problems that may be unfamiliar to you, and for which there are no easy solutions. This means you need to expect a lot, both from yourself and from others hired to help a child with special needs.

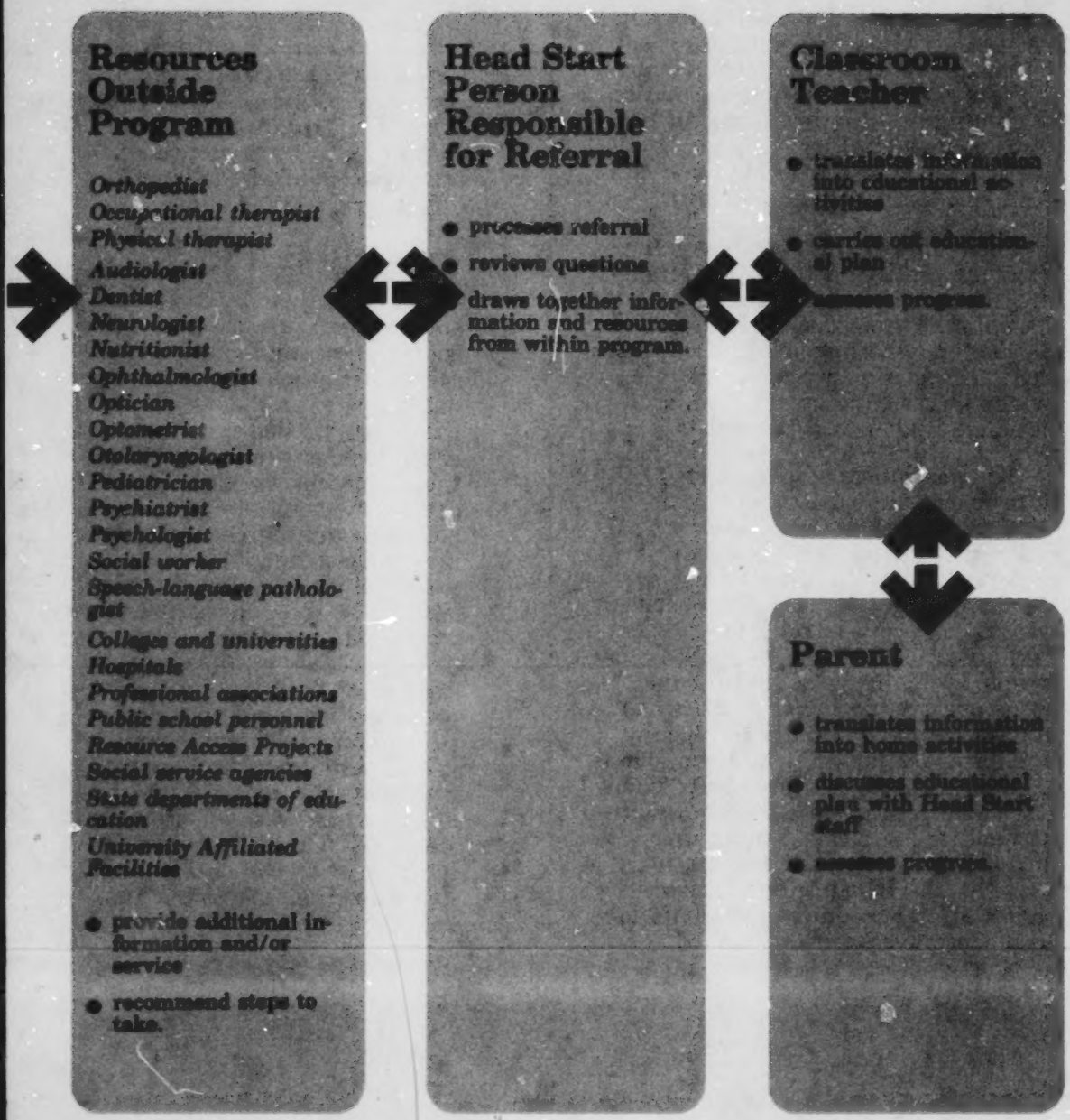
If you are going to get the most from resource persons both inside and outside your program, you need to be doing a great deal yourself. You need to identify what the child can currently do and what he or she is developmentally prepared to learn. At the same time, you will have to maintain a program that is good for all the children in the classroom.

Expect a lot from the people your program has hired on a full-time, part-time, or consultant basis. Don't be impressed by their titles, backgrounds, or anything else except *how helpful they really are to you, the child, and the child's family.*

18

Using Local Resources for Mainstreaming Handicapped Children




Resources Outside Program
Orthopedist
Occupational therapist
Physical therapist
Audiologist
Dentist
Neurologist
Nutritionist
Ophthalmologist
Optician
Optometrist
Otolaryngologist
Pediatrician
Psychiatrist
Psychologist
Social worker
Speech-language pathologist
Colleges and universities
Hospitals
Professional associations
Public school personnel
Resource Access Projects
Social service agencies
State departments of education
University Affiliated Facilities
• provide additional information and/or service
• recommend steps to take.
Head Start Person Responsible for Referral
• processes referral
• reviews questions
• draws together information and resources from within program.
Classroom Teacher
• translates information into educational activities
• carries out educational plan
• assesses program.
Parent
• translates information into home activities
• discusses educational plans with Head Start staff
• assesses program.

20

Who Are the Specialists? What Do They Do?

Many families have a family doctor, pediatrician, or health clinic to whom they entrust the medical care of their children. For the vast majority of children, the family doctor or clinic can meet all of their medical needs. This is also true for some children with orthopedic handicaps.

For a child with a handicap, however, the family doctor or clinic may suggest that the child be seen by a specialist. These specialists are medical doctors who have additional training in a specific area, and other professionals such as physical, occupational, and speech therapists.

The specialists respond specifically to problems related to the handicap, leaving general medical needs up to the family doctor. This means it is important to maintain a family doctor for a child who is seeing specialists, to take care of routine immunizations and regular checkups. People specializing in specific diseases usually view their services as supportive to the family physician, who provides for the long-term general medical needs of the family. There have been examples of children with orthopedic handicaps attempting to enroll in public school, only to learn that the childhood immunizations that state law requires for admission to school have been overlooked.

Following are descriptions of the specialists orthopedically handicapped children are most likely to need help from, and the kinds of help they can provide. Other specialists who work with handicapped children are described in the section beginning on page 22.

Occupational Therapist

An occupational therapist evaluates and treats children who may have difficulty performing self-help, play, or school-related activities. The aim is to promote self-sufficiency and independence in these areas.

What Is Done

After evaluating children to see how they use their muscles to eat, dress, and carry out preschool activities (such as drawing, cutting, and pasting), the therapist chooses exercises and activities designed to improve the child's motor skills in three areas. The self-help area includes feeding, dressing, toileting, and washing. The play area includes moving the body (sitting, walking, handling objects) and psychosocial aspects (getting along with others, tolerance for frustration). The preschool area includes perceptual-motor skills (paper and pencil activities, hand-eye and body-eye coordination) and the ability to move the body smoothly. The therapist will tell you what you can do to help the child, as part of the therapy program.

Orthopedist

An orthopedist is a medical doctor who deals with the development, function, and disorders of the skeletal system (muscles, joints, and bones).

What Is Done

An orthopedist sets broken bones, prescribes prosthetic devices and braces, and makes recommendations to physical therapists in cases where exercises are advised.

Occupational therapists help children improve self-help skills such as self-feeding.

Physical Therapist

A physical therapist evaluates and plans physical therapy programs. He or she directs activities for promoting self-sufficiency primarily related to gross motor skills such as walking, sitting, and shifting position. He or she also helps people with special equipment used for moving, such as wheelchairs, braces, and crutches.

What Is Done

A physical therapist evaluates each child with whom he or she works before, during, and after each treatment program. The physical therapist may give muscle tests to see how strong each muscle is, and how much the child can move it. Such tests help a therapist to choose the right kind of treatment. The therapist may help a child practice walking, crawling, hopping, skipping, and going up and down stairs. A physical therapist also teaches children how to maintain their balance when standing, walking, and sitting.

As part of a program of physical therapy for a particular child, the therapist can tell you if there are any exercises or activities that you can do to help the child, and can show you how to do them.

22 Other Specialists

Below is a list of other specialists who may work with handicapped and non-handicapped preschoolers.

An **Audiologist** conducts screening and diagnosis of hearing problems, and may recommend a hearing aid or suggest training approaches for people with hearing handicaps.

A **Dentist** conducts screening, diagnosis, and treatment of the teeth and gums.

A **Neurologist** is a medical doctor who conducts screening, diagnosis, and treatment of brain and nervous system disorders.

A **Nutritionist** evaluates a person's food habits and nutritional status. This specialist can provide advice about normal and therapeutic nutrition, and information about special feeding equipment and techniques to increase a person's self-feeding skills.

An **Ophthalmologist** is a medical doctor who diagnoses and treats diseases, injuries, or birth defects that affect vision. He or she may also conduct or supervise vision screening.

An **Optician** assembles corrective lenses and frames. He or she will advise in the selection of frames and fit the lenses prescribed by the optometrist or ophthalmologist to the frames. An optician also fits contact lenses.

An **Optometrist** examines the eyes and related structures to determine the presence of visual problems, eye disease, or other problems.

An **Otolaryngologist** is a medical doctor who conducts screening, diagnosis, and treatment of ear, nose, and throat disorders.

A **Pediatrician** is a medical doctor who specializes in childhood diseases and problems, and in the health care of children.

A **Psychiatrist** is a medical doctor who conducts screening, diagnosis, and treatment of psychological, emotional, behavioral, and developmental or organic problems. Psychiatrists can prescribe medication. They generally do not administer tests. There are different kinds of psychiatrists.

A **Psychologist** conducts screening, diagnosis, and treatment of people with social, emotional, psychological, behavioral, or developmental problems. There are many different kinds of psychologists.

A **Social Worker** provides services for individuals and families experiencing a variety of emotional or social problems. This may include direct counseling of an individual, family, or group; advocacy; and consultation with preschool programs, schools, clinics, or social agencies.

A **Speech-Language Pathologist** conducts screening, diagnosis, and treatment of children and adults with communication disorders. This person may also be called a speech clinician or speech therapist.

Chapter 3:

Parents and Teachers as Partners

3

Parent involvement is the cornerstone of a successful Head Start Program.

24 ***One of Head Start's unique achievements has been the involvement of parents in the education of their children. Parents are the primary educators of their children, and their involvement is the cornerstone of a successful Head Start program. This partnership is even more important in the education of a child who is handicapped, for the following reasons:***

- ***Parents know their children's strengths and limitations better than anyone else. They can help a teacher understand and plan for their child.***
- ***A joint family/teacher effort is essential for developing the best program for a child and for ensuring that the child will benefit as much as possible from the Head Start experience.***
- ***Head Start may be the first preschool experience the child and parents will participate in. Making it a successful experience will have positive effects on the child's school years to come.***
- ***Children with orthopedic handicaps are often following treatment plans, which involve such things as medication, diet, and exercise (including physical therapy). Parents usually have the responsibility for carrying out the treatment plan. It will be important for you to know what the parents' responsibilities are.***

Parents as Decision-Makers

Head Start has always considered parents important decision-makers for their child, because they are the main influence on the child's development. They need to reinforce what you are teaching in preschool if maximum progress is to be made. Changes in a child that come about through your efforts, the efforts of specialists who provide services, and the experience of mainstreaming affect parents. For all these reasons, it is important that the parents participate directly in what you are trying to accomplish with the child in the program.

Direct parent involvement in decisions affecting their child is essential. They should decide with you what and how you teach their child, and what efforts they will make at home. They should participate in decisions involving formal assessment and diagnosis of their child, and selection and arrangements for any special services that are needed. They should be a part of any decisions that are made as a result of assessments of their child's progress.

One of the major areas in which parents are needed as decision-makers is in the development of an individualized education plan for their child. This plan is a written statement developed in meetings of the diagnostic team, the parents, and the teacher. It spells out the educational goals for the child, the activities that will take place in the classroom, the involvement of parents, the special services that will be provided by other agencies, and details of the evaluation procedure. Parental consent is required by law at two points: to give permission for the diagnostic process to take place, and to give permission to put into effect the individualized education plan that has been developed for the child. This requirement is intended to guarantee that parents have their rightful say in the education of their child.

The rest of this chapter discusses specific ways in which parents can help in the education of their child, and provides guidelines for teachers in working with the parents of handicapped children.

What Parents Can Do

Helping Your Child

As parents, you are the first and most important educators of your child. You can help in your child's education in a number of ways, both at home and in the classroom. You might begin by taking the following steps:

1. Get to know your child's teacher. Give him or her a realistic idea of how much you can do. Take into consideration the amount of extra time you can afford to spend working with your child, as well as how much time you would like to spend.

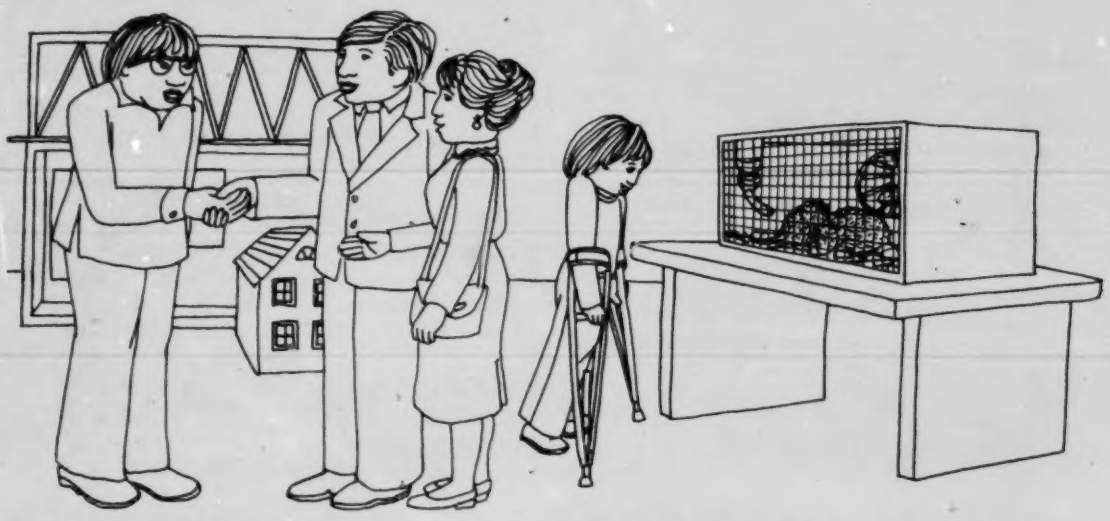
2. Recognize that you have a tremendous influence on the growth and development of your child. What you do *does* make a difference. Try to participate in your child's learning as much as possible.

3. Seek guidance from your child's teacher if you are not certain how to use everyday events at home as learning experiences for your child. The teacher may be able to suggest specific activities you can do with your child to help him or her build necessary skills.

4. Build on Head Start's firm commitment to a partnership with parents. You aren't alone in your efforts to help your child. You now have partners who can help promote the well-being and development of your child: the teacher, other staff members in the program, and agencies and public school resources in the community.

5. Assist teachers in working cooperatively with the specialists who are involved with your child. Set an example of seeking out information and assistance. Insist that specialists use language and explanations that you understand. Encourage teachers to do the same.

3



A visit to the Head Start center is important in preparing your child for the program.

The next section discusses how to prepare your child for the Head Start program, some things you may find helpful to discuss with the child's teacher, and how to use everyday events in the home to foster your child's development.

Preparing Your Child

You can help both your child and the program staff by preparing the child for the Head Start program. Just before the start of class, bring your child to the Head Start center. Introduce yourself and your child to the teacher and other staff members. Encourage your child to explore the classroom and to play with some of the materials. Try to make sure that your child has a good time during this visit.

Some children may be frightened at first about leaving home. You and the teacher may want to discuss whether it would be helpful to your child if you remain in the classroom during the first few days. At some point your child will have to feel comfortable in the classroom without your being there. This takes more time for some children than for others.

A little bit of home at preschool and a little bit of preschool at home go a long way toward helping children feel comfortable and secure. Perhaps at home you can hang some pictures of the classroom or the teacher. Or your youngster could be sent to class with a favorite toy or familiar object from home, to increase his or her feelings of security.

Try to have your child arrive in class on time. Let the teacher know of important events at home that might influence the child's behavior in class. These special events may be happy times (such as birthdays, a family visitor, or a trip), or unhappy times (such as death, illness, or disruption in the family routine).

Inform the teacher of your child's treatment routine and doctor appointments. Also let the teacher know when any changes are made in treatment, medication, or prognosis (prediction of the outcome of a disease).

Understanding Skill Areas

You may feel that you need help from the teacher in understanding the skill areas—such as motor skills, self-help skills, language skills, social skills—that your child has serious weaknesses in. Don't hesitate to approach the teacher for this help, or for help in figuring out ways to use daily home activities to help build on the child's strengths and work on the child's problems.

Try to talk frequently with the teacher in terms of specific skills. Exchange suggestions. If your child is living with both parents, both of you should try to get involved in conferences and conversations. Each parent may have a different perspective.

Ask to see for yourself what the teacher does and how he or she does it in the classroom. You might even want to try practicing skills with your child in the classroom. Sometimes it is better for you to work with a child other than your own. But in either case it will give you practice and an opportunity to exchange ideas with the teacher.

Describe to the teacher an average day at home, in order to learn how you can use these everyday events to work on the skills your child is having problems with.

If you have had trouble understanding your child's orthopedic handicap, you may find it helpful to look up the relevant definition in Chapter 4. The resources listed in Chapters 2 and 7 may also be useful to you. You may want to order some of the materials published especially for parents by the various organizations.

Additional Effort

All young children learn by having different experiences and by trying things out. This means that your child needs to be involved as much as possible in daily activities at home, just like other children. If it's good for a non-handicapped child to help feed the dog, then it's good for an orthopedically handicapped child. Any activity the child can be involved in can go a long way toward helping him or her build self-confidence and competence.

You will probably have to make some additional effort to help your child become actively involved in daily events. Work out with the teacher what you can realistically do, but recognize that extra effort is necessary.

Home Activities

Activities at home should be as enjoyable as possible for the child and for the family. Don't overburden yourself or your child. Ask the teacher to suggest things that can easily be built into the daily routine. If the suggestions are too hard to carry out, they may not get done.

On the other hand, if you are willing to take a more active teaching role at home, ask for extra suggestions for things you can do. Talk with the teacher about what you like to do with your child and about what the child likes to do at home. Those activities can all be learning opportunities.

If you would like some specific activities to do at home with your child, look over the activities in Chapter 6. Remember, however, that you need not be a formal teacher for your child. Often the best way to help your child is to be loving and helpful, and to use the daily routine as a way to teach the child. All of the things that you do at home can be used to help the child with special needs learn more about the world.

1. Using the Daily Routine

For example, you can describe what you're doing when you turn on the lights, set the table, or make the bed. You can point out and name colors in the house and outside. You can name your child's pieces of clothing. You can give the child simple chores, like putting the napkins by each plate, passing the cookies, putting clothes in the laundry basket. Don't expect the job to be done perfectly the first time, or even the second. With patience and affection you can help your child improve.

Be consistent in what you ask your child to do. If it is reasonable to expect a child to hang pajamas on a hook in the morning, then you should expect the child to do this every morning.

28 Expensive toys or materials aren't needed to help children learn. The kinds of things that are in all homes —pots and pans, socks, spoons, and magazine pictures—are all good teaching aids. Pots and pans can be used as rhythm instruments, can be stacked or nested, or can be sorted. Socks can be matched by color, counted, and folded together. Pictures can be named, or used to tell stories.

Confusion and failure can result if you shower the child with too many activities. As you work with your child, you will recognize when the child has had enough. You can help the teachers recognize this limit, too.

2. Fostering Independence

Help your child become as independent as possible. It's tempting for all of us to do things for children that they could do on their own, since we can do them faster and better. But it is very important for handicapped children to learn to do as much as they can by themselves. Independence helps children feel good about themselves and improves their ability to get along with others.

If your child has clumsy or uncoordinated body movements, you may worry that he or she could get hurt by all that tripping and falling. You may even feel that you should put the child in a playpen or crib to protect him or her from bumps and bruises. Doing so, however, is a disservice to your child, who learns best about the world by exploring it firsthand. You might ask the teacher to suggest how to "child-proof" your home so that exploration is less dangerous for a child who isn't too steady on his or her feet.

3. Praise and Encouragement

We all benefit from honest praise—children as well as adults. Praise program staff honestly for their efforts with your child, and ask them for feedback on your work with the child. Remember also to praise your child's achievements. For some children, even small tasks can take a lot of time to master. Every achievement—from learning to sit still to managing to eat independently—represents real progress and deserves real praise.

Also, praise the child for trying, even if failure or mistakes result. Continued effort is essential for children with special needs, who have many obstacles to overcome. Repeated, steady praise will help a child to keep on trying.

It is important, however, that your praise be honest, and that your child has done something to earn it. Children are very good at recognizing insincerity. If you praise your child at times when he or she has not been trying or has not mastered something, the youngster will be confused and will not understand what your expectations are.

Ask the teacher to share assessment results with you. Everyone involved should understand how the child is functioning and share pleasure at the child's progress.

What Teachers Can Do

Guidelines for a Partnership with Parents

Parents of children with special needs are as concerned about their children, or more so, as any other parents. You may want to keep in mind the suggestions below as you work with parents.

1. Establish and Maintain Contact

Describe the Head Start program in detail, and invite the parents to observe and participate in the classroom. Work out the child's educational goals in conference with them. Review the child's short- and long-term objectives with them at least every three months, or whenever needed.

Although at least two home visits a year are required in Head Start programs for all children, you may need to make more visits if a child is handicapped. Maintain contact with the parents as often as you can. Visits, phone calls, notes, and sending children's projects home with them can help parents see the skills their child is learning. As with any child, don't contact parents only when there is a problem. Ask yourself, as often as you have time, "What did the child do today or this week that shows some progress or enjoyment? How can I tell the parent, along with everything else I have to do?"

Some teachers and parents send a notebook back and forth each day or so. Teachers write a short note and send it home. Parents write one back for the child to take to preschool the next day.

2. Know the Family's Limits

Everyone has a personal limit on how much he or she can do for a child at home or in the classroom. Get to know families well enough to understand these limits. Make sure that the suggestions you give them for working with their child can easily be included in their daily routine. For example, ask parents to talk to their child as they help him or her dress, to name the foods the child is eating, and to give the child simple things to do (like putting a spoon by each plate). Encourage parents to visit and participate in your classroom as much as they can.

Encourage parents to visit the classroom.

30 **3. Focus on the Child's Education**

Families of handicapped children may have all kinds of feelings about having a handicapped child. Some may feel angry, some guilty, and some embarrassed. Some may feel that they have a special responsibility to protect their child from all problems and frustrations, and they may expect much less from the child than he or she is really capable of. They may need the help of a psychologist, a social worker, or a counselor in learning to accept and deal with these feelings.

While you can be supportive and sympathetic, you haven't been trained to be a social worker and should not try to take that role. Suggest to these parents that they talk to people who can help them work through their feelings, if you feel they need it. Your main role is to be the teacher of the child. You should concentrate on the child's education and development.

4. Recognize and Deal with Your Feelings

Be aware and honest with yourself about your own feelings toward a handicapped child and his or her family. Negative feelings, such as blame, anger, sorrow, nervousness, and fear, are understandable. Getting to know the child and the family helps to reduce some of these negative feelings.

Think positively about children with special needs. Focus on what they are currently able to do, not on what they can't do. Help the parents see their child as someone who can grow, learn, and improve, no matter how severely handicapped. Most of us feel better about ourselves when people look at our strengths rather than our weaknesses.

5. Be Reassuring, but Be Honest

Parents may be worried and upset when their child is about to be evaluated for the first time, or re-evaluated. At such a time, it might be tempting for you to tell them not to worry, and to tell them that everything will be fine. It is natural for you to want to soothe their anxiety. However, you shouldn't tell them these things because in fact you don't know if things really *will* be fine. A false sense of confidence can be hurtful. Be reassuring, be calm, be understanding—but be truthful.

Parents may ask you questions about the child's problems that you can't answer: "What's wrong with my child?" "Will my child learn to talk or move or act like other children by the end of the year?" Don't be afraid to say that you don't know the answers, but help parents find someone with whom they can discuss their concerns. Your social services personnel should be able to help you find people who can answer some questions. The answers to other questions, such as "What will my child be able to do when he grows up?" are often uncertain and complicated. Beware of people who have easy answers.

Some parents need reassurance and evidence that they can help their child. Help them see the many things that they already do that help their children, and tell them about all the things they are doing well.

Concerns of Parents

Parents of Children with Special Needs

Parents of handicapped youngsters often have special concerns. In general, it is wise for you to wait until they bring up these problems, rather than to suggest what the problems might be. Otherwise, you could be creating a problem that they have never felt.

Reading about some of the concerns that parents of children with handicaps often have should help you understand what some parents mean when they hint at a concern without actually saying it.

Enrollment in a Mainstream Classroom

Parents may worry that their child will not fit into the Head Start program. You may need to reassure the family that you want the child in your classroom, and that you believe the child will enjoy and learn from your classroom. Invite the parents to watch and listen to what is going on—let them see for themselves how their child plays with and works with the other children and with you. Seeing is believing.

Parents are sometimes concerned that their child will not be liked and accepted, and that other children may be cruel and tease their child.

When a child with an orthopedic handicap enters your program, he or she may have had little previous experience playing and spending time with non-handicapped children. Assure the parents that other children will treat their child just as you do—with respect and affection. Let them know that you will create a positive, accepting climate in your classroom.

Seeing is believing, so invite the parents to visit your classroom so that they can get a feeling for the atmosphere themselves.

Throughout the year, keep the parents as informed as you can about how their child is getting along with the other children. If problems do arise, you may want to ask the parents how they handle similar situations at home. What do the parents do to help the child play with brothers and sisters or with neighborhood children? You will probably find that the methods you use with non-handicapped children who aren't getting along with each other are just as useful with handicapped children.

Teacher's Time

Assure the parents of a handicapped child that you will have time for their youngster. Describe to them what you will be doing with their child and explain that you will have your aide, volunteers, and other staff members to help you. Discuss also any outside assistance the child will be getting.

32 **The Future**

Parents may worry that their child will not make progress in your program. You can assure them that there are many things that you can teach their child, and that their child will also learn a lot from the other children in the class. But be careful not to offer the parents false hopes. Make it clear that you can't make long-range predictions about how far the child will progress in the future, but that you will help the child learn as much as he or she can in Head Start. Be honest when you describe the skill areas you are working on with their child, and keep them well informed of their child's progress. Ask the family, in turn, to tell you how the child is progressing at home.

As with non-handicapped children, if you genuinely like a child, and if you and other staff members in your program have worked out a sensible plan to meet the child's needs and stimulate his or her development, you have a solid basis for developing a real partnership with the parents. While parents of youngsters with orthopedic handicaps have some concerns that are different from the concerns of other parents, you can use the same skills and ways of working with them that you have already developed in your conversations and personal contacts with other parents.

Parents of Non-Handicapped Children

Many Head Start programs have children with handicaps in their classes. Generally, parents of non-handicapped children in a mainstream classroom have no strong concerns about the presence of a child with special needs in the class. If the parents of a non-handicapped child are concerned, invite them to come to your classroom to see for themselves. This will show them that a handicapped child is first and foremost a child and an individual, like their own child. You can also give a brief description of the condition, avoiding specific information on the child or the child's family. Visiting your mainstream classroom will help dispel incorrect ideas parents may have about a handicapped child whom they have never met.

Some parents may express a concern that their child will pick up undesirable behavior from handicapped children. You can explain to them that it is normal for children to copy the behavior of other children—this is one of the ways they learn. However, undesirable behavior tends to be outgrown quickly, once it has been tested and met with disapproval.

If parents would like to talk to their child about handicaps, you might suggest that they do this in a factual, non-emotional way. If the parents are concerned that you won't have enough time for their non-handicapped child, you can describe to them the staffing arrangements your program has made to enable all children to have enough teacher time.

In general, be calm, reassuring, and objective, and describe the very real benefits to their child of mainstreaming a child with an orthopedic handicap in the classroom.

Chapter 4:

What Are Orthopedic Handicaps?

4

You will learn to see beyond the handicap to the whole child.

34 *Orthopedic handicaps are conditions that primarily limit a person's physical abilities. These handicaps are usually highly visible, either because of awkward or uncontrollable muscle movements or because children use devices such as wheelchairs, braces, and artificial limbs. Seeing a child with an orthopedic handicap often brings on many uncomfortable feelings. You may feel overwhelmed by thoughts of the difficulties a handicapped child will face throughout life. Or you may wonder how you can possibly work with such a child in your program. Often the handicap seems to stand out as the child's most important characteristic.*

Learning more about handicaps and having firsthand experience in working with handicapped children can help you see beyond a handicap to the whole child. It can enable you to make appropriate program modifications. It can also help you see that it is the non-handicapped who are usually most overwhelmed by the difficulties handicapped children face. Children who are handicapped from birth or from an early age usually accept their condition. Like all children, they have no sense of future difficulties: they take life as it comes from day to day.

Preschoolers with orthopedic handicaps may have had little contact with people outside their home, because it is difficult for them to move from place to place. Your preschool can provide an expanded world for these children. It allows them to experience an important environment, to interact with other adults and children, and to learn from them. It is not necessary to make these youngsters the center of attention; that only sets them apart from the others. Make it possible for them to interact normally with other children and adults. Let them try things out, talk, play, work, argue, and so forth. As they gain confidence in their ability to deal with the world, they will build positive feelings about the world and their place in it.

How Are Orthopedic Handicaps Defined?

The "Head Start" Definition

In defining handicapping conditions, Project Head Start distinguishes between **categorical** definitions, which are used for reporting purposes, and **functional** definitions, which describe a child's areas of strength and weakness. The categorical definition uses Project Head Start's legislated diagnostic criteria. An interdisciplinary diagnostic team (or a professional who is qualified to diagnose the specific handicap) must use this definition to make a categorical diagnosis of a child. This diagnosis is used only for reporting purposes. A functional definition or diagnosis, on the other hand, assesses what a child can and cannot do, and identifies areas that call for special education and related services. The functional assessment should be developed by a diagnostic team, with the child's parents and teacher as active participants. Another term for functional assessment or functional diagnosis is **developmental profile.**

According to Project Head Start, the following categorical definition of orthopedic (physical) handicaps is to be used for **reporting purposes** in Head Start programs:

> **A child shall be reported as crippled or with an orthopedic handicap who has a condition which prohibits or impedes normal development of gross or fine motor abilities. Such functioning is impaired as a result of conditions associated with congenital anomalies, accidents, or diseases; these conditions include, for example, spina bifida, loss of or deformed limbs, burns which cause contractures, cerebral palsy.**
>
> ("Transmittal Notice Announcement of Diagnostic Criteria for Reporting Handicapped Children in Head Start," OCD-HS, September 11, 1975.)

Kinds of Orthopedic Handicaps

The conditions discussed in this book are: cerebral palsy, spinal cord damage (spina bifida and paralysis), arthritis, loss of or deformed limbs, severe burns, and muscular dystrophy. This section describes each of these conditions.

4

Cerebral Palsy

Cerebral palsy (ce-**re**-bral **pal**-zee or **cer**-e-bral **pal**-zee) is the name given to a number of conditions in which injury to the brain affects the control of movements. The severity of a handicap depends upon how much damage has occurred in the brain and which muscles the damaged part of the brain controls. Since brain damage cannot be fully repaired, there is no cure for cerebral palsy. There are, however, many forms of treatment that can increase a child's ability to function. Early detection and treatment can modify the effects of cerebral palsy a great deal.

36 Types of Cerebral Palsy

In each type of cerebral palsy the way in which the muscles are affected and the location of the affected muscles depends upon the location of the brain injury. There are several types of cerebral palsy in which the affected muscles are spastic (tight), the range of muscle movement is less than normal, and the reflexes of the child are heightened. In these conditions the nerve cells in the injured part of the brain appear to send messages to a pair of muscle groups, which causes these muscles to work against each other rather than together.

For example, if a person wants to bend an elbow, then the muscle group on the inside of the elbow has to tighten (contract) and the muscle group on the outside of the elbow has to stretch (extend). Both groups have to work together if the elbow is to bend smoothly and into the exact position that the person desires. When a child has cerebral palsy, instead of one muscle group contracting (becoming shorter) while the opposite group extends, both groups contract at the same time. This makes the affected joint tight and the limb stiff, and causes abnormal positions in the arms, legs, trunk, and neck.

The names of some types of cerebral palsy indicate where the body is affected. In **hemiparesis,** the muscles on one side of the body are affected. In **diplegia,** primarily the lower limbs are involved and there is some effect on muscles in the arms and hands. **Triplegia** is a type of cerebral palsy in which one upper and two lower limbs are involved, while in **quadraplegia** all four limbs are equally affected. In **double hemiplegia** both sides of the body are involved, but the muscles in the arms are more greatly affected than those in the legs.

Choreoathetosis is a movement disorder that is also caused by injury to the brain. Children with choreoathetosis are called **athetoid.** Athetoid children cannot control how much they move the muscle groups that are affected in their arms, legs, hands, or mouth. The affected muscles seem to have a mind of their own; they move when the child does not want them to or they move in a way that was not intended. For example, a child's arm and hand may move all over the table when the child reaches to pick up a cup, or a child's head may turn sideways when he or she tries to grasp a storybook.

Children with choreoathetosis have heightened reflexes. Many will also have spastic (tight) muscles in the affected parts of their bodies.

Commonly Associated Handicaps

Because cerebral palsy is caused by damage to the brain, children who have this condition often have other conditions that are caused by brain damage. These include mental retardation, epilepsy, hearing problems (often found in choreoathetosis), visual problems, and speech problems. Cerebral palsied children can also have the same learning problems as children who are called learning disabled. This book focuses on problems resulting from the *physical* difficulties of children with cerebral palsy. For specific information on the associated handicaps, see the appropriate book(s) in this series.

Spinal Cord Damage

When the spinal cord is damaged through accident or illness, or when it has a congenital condition such as spina bifida, paralysis (loss of sensation and muscle tone) may result in certain parts of the body.

The spinal cord contains nerves that send messages back and forth between the brain and other parts of the body. Movement is caused by messages from the brain. Messages from various parts of the body to the brain usually involve information (such as touch, pain, temperature, and position) from various senses. Spinal cord damage can affect messages from the brain to other parts of the body or messages from parts of the body to the brain. Or both types of messages may be affected.

The effects of spinal cord damage depend on the nerves that are involved, as well as on the location of the damage. The damaged areas may interrupt messages from the brain to those parts of the body below the area of damage. This means that the higher up the damage is on the spinal cord, the greater the affected area will be. The effect of spinal cord damage varies. In some cases there is paralysis, which means inability to move, or varying degrees of weakness. There are varying degrees and amounts of paralysis. With paralysis there may be sensory loss in the ability to perceive touch, pain, or temperature. In addition, there may be associated difficulties in bladder or bowel control.

One of the most common conditions that results in spinal cord damage is **spina bifida**. Spina bifida (**spi**-na **bif**-i-da) means "cleft spine." A child with spina bifida has a backbone (or spine) that did not close during development in the womb. When one or more of the bones of the spine fail to close, a cleft or opening is created in the spinal column. The nerve tissue in the spinal column can then slip through this opening, forming a sac that sticks out of the body.

Every child is affected differently by spina bifida. In some children the effects are completely unnoticeable, while other children are severely affected in a number of ways. The location of the opening and whether the cord protrudes from it determine the degree of nerve damage. The more protruding the cord and the higher it is on the spinal column, the greater the loss of skin sensation and muscle control from the point of the opening downward on the body. In mild forms of spina bifida, the only difficulty may be weak muscles and some loss of feeling in the skin. More severe forms might leave a child paralyzed in the legs, with no bowel and bladder control, and with no skin sensations in the lower part of his or her body.

Spina bifida is usually identified at birth. Often an operation can repair the sac, making it less visible. However, the operation does not correct the damage that has been done to the nerves.

38 Sometimes a child with spina bifida will also have a condition called **hydrocephalus** (**hy**-dro-**se**-fal-us). In this condition, too much spinal fluid (the fluid that bathes the spinal cord and brain) builds up in the brain. If left untreated, the pressure from the build-up of fluid can damage the brain. This brain damage can often be prevented by surgery that places a shunt (tube) in the child's head. The shunt directs the excess fluid away from the brain into another part of the body from which it can be eliminated.

Commonly Associated Handicaps

Because brain damage sometimes occurs with spina bifida, some affected children may have other conditions related to brain injury. These include mental retardation, epilepsy, hearing problems, visual problems, and speech problems. Children with spina bifida can also have the same learning problems as children who are called learning disabled. These problems vary greatly. This book focuses on the *physical* problems resulting from spina bifida. For information on the associated handicaps, see the appropriate book(s) in this series.

Arthritis

Arthritis (arth-**ri**-tis) is one of several rheumatic (ru-**ma**-tic) diseases. (Rheumatism refers to conditions of the muscles, tendons, joints, bones, or nerves.) There are many types of arthritic conditions. In each type, arthritis causes swelling, stiffness, and tenderness in one or more joints of the body—such as knee, wrist, shoulder, hip, ankle. The swollen joints cause the surrounding muscles to become stiff and tense. In some types of arthritis there may also be fever, loss of appetite, and general fatigue. Arthritis can affect other parts of a child's body, such as the heart, spleen, and liver. In milder cases arthritis may last for two or three years. In more severe cases, it can last over eight to ten years or for one's entire life.

Arthritis can occur at any age and affects each person differently. Swelling can occur in just one joint, or in many. The amount of swelling can also change from day to day. Some days a child with arthritis can move freely and not be stiff. On other days, movement is difficult.

Sometimes lack of activity in an arthritic joint (or joints) can make the stiffness worse. Many children are most stiff when they first get up in the morning. After two or three hours of moving about, the swelling is eased and the stiffness lessens. On the other hand, too much activity can cause the joints to swell and become stiff.

While arthritis cannot be cured, the stiffness caused by the swelling can be treated. Doctors often prescribe aspirin and other medicines to reduce the swelling. Specific exercises and the use of heat often relieve the tightness in the muscles around the swollen joints. Physical therapy and occupational therapy can also help to maintain movement in joints that have become tight and in muscles that have become stiff and cramped. Sometimes splints are placed and/or operations are performed on arthritic

joints, to try to prevent them from becoming deformed.

Occasionally children with a condition called juvenile rheumatoid arthritis develop a serious eye disease. These children should have regular eye checkups. The eye disease, if present, is treatable. If not treated, this disease can lead to blindness.

Lost or Deformed Limbs

The medical terms for lost or deformed limbs are "acquired amputations" and "congenital amputations." A congenital amputation occurs when a child is born without part or all of one limb. In acquired amputation, a child is born with all four limbs but later loses part or all of a limb through accident or surgery (this type of surgery occurs frequently in cases of bone cancer). The loss, whether congenital or acquired, ranges from the absence of a single digit (finger or toe) to the absence of all four limbs. In many cases the child can be fitted with prostheses (artificial limbs) or be trained to use the remaining portion of the limb.

Burns

Burns can make movement difficult, both while they are healing and once they have healed. The scarring that is caused by the healing process in serious burns may leave a child with contractures (tightened muscles). This means that the skin and muscles are tight, making normal movement difficult. The degree to which the child is able to move once the burn has healed will depend upon:

- how large the burn area was
- how deep the burn went (did it include muscle and bone tissue?)
- the extent of damage to the nerves
- how much exercise (movement) the area received while the burn was healing.

In some cases of severe burns, all or part of one or more limbs is lost.

Muscular Dystrophy

Muscular dystrophy (**mus**-cu-lar **dis**-tro-fee) refers to a group of long-term conditions whose most prominent characteristic is the progressive degeneration of the muscles that are used for moving and maintaining posture. These conditions are usually hereditary, but not always. The age when this condition starts, the particular muscles that are first affected, the rate at which the muscles are destroyed, and the length of time the child lives depend upon the type of dystrophy. No treatment has yet been discovered to stop the progression of the disease.

The most common type of dystrophy in young children is Duchenne (du-**shen**) type. This hereditary condition appears between the ages of two and six, and occurs mostly in males. The condition begins in the muscles involved in standing and walking. As time passes, boys with Duchenne type dystrophy have greater trouble getting up from the floor or from a chair, and walking up or down stairs.

Often they walk with a waddle. Gradually they become more clumsy. Their calf muscles (the muscles below their knees) slowly grow larger, as fat replaces the muscle that is wasting away. As their muscles weaken, these children require braces and/or crutches. Once their muscles have become very weak, they need a wheelchair to move around. The muscles continue to waste away for about ten or fifteen years, until the child dies. A preschool-aged child would not yet be greatly affected. There is rarely any physical pain with this condition.

It is possible that a child with this condition might not be diagnosed before enrollment in Head Start. If you have questions about a child's physical development, check with the parents and the program nurse.

Fractures

Fractures (broken bones) are not handicaps. However, they are common among children, and often result in a child's being temporarily physically disabled. There may also be temporary or permanent damage to the nerves near the fracture.

Fractures are usually treated by placing the broken pieces in the right position and then putting a cast on the affected part of the body until the fractures have healed. Sometimes an operation is needed either to set the bone pieces in place, or to reset the pieces if they have not healed properly. For about four to six weeks after the cast has been removed, the muscles of the affected limb may be weak. Therefore, during that time any movement or activity involving that part of the body must not be strenuous. Use of the limb should be encouraged, however, in activities that do not call for strength or competition.

The child with a fracture is not usually considered handicapped by Project Head Start, although the cast may make it difficult for him or her to get around. Most fractures do not require special services. A child with a more severe problem (requiring, for example, a body cast) may require certain program modifications.

Problems Associated with Orthopedic Handicaps

Since a great many orthopedically handicapped children require frequent hospital stays, surgery, and specialized medical care, some of these children are delayed in their development. A number of these children probably will not have had the environmental experiences necessary for attainment of the key developmental milestones in the preschool years. The necessity for frequent hospitalizations and special medical care can also result in emotional problems for a child and family.

If you recognize any of these problems in an orthopedically handicapped child, you may wish to consult with other people in your program and with parents, to determine how best to help the child and the family.

Recognizing Problems for Referral

Most children with orthopedic handicaps will be diagnosed before their enrollment in Head Start. Some may not be, for a variety of reasons. Diagnosis is necessary to understand the child's needs, so that appropriate services may be provided. Sometimes a child may be diagnosed, but not receiving any treatment. The teacher may be the first person in the life of the child who can alert other professionals to an undiagnosed child or to a child who is not getting the needed treatment.

It is the responsibility of a professional diagnostician, not the Head Start staff, to determine whether a child is handicapped. Teachers and aides in Head Start should share their concerns about a child with other professionals and specialists, but should not make "instant diagnoses" themselves. Teachers and aides can make very important observations about children. Sharing this information with a specialist can be very useful in diagnosing and planning for a child.

General Guidelines

Learn to Observe Carefully

Your own classroom observation, plus conversations with parents about their children, can be the best foundation for deciding whether to refer a particular child to a professional diagnostician. As a classroom teacher, you observe children and draw conclusions every day. In fact, it may be so habitual to you that you are unaware of it.

Think, for example, about what your children did during the last week or month. What did they like? Dislike? What did they do well? What problems did they have? The process of carefully observing and drawing conclusions helps you plan activities to meet the individual needs of all the children. Even though you aren't a professional diagnostician, don't underestimate your ability to spot serious problem areas that may indicate a handicapping condition in a child.

Your observations are important.

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Ask Questions

This book covers several different conditions that result in orthopedic handicaps. There are many symptoms or signs for each of these conditions, most of which occur normally at some time in *all* children.

For instance, a child with mild cerebral palsy might startle easily, or trip and fall easily. The child might seem to walk on his or her toes or hold one arm close to his or her body. The child might have difficulty picking up and using crayons, or other small objects. A child with muscular dystrophy might begin to have difficulty rising from the floor or a chair.

Ask yourself some good, basic questions to determine whether a child should be referred for professional evaluation:

Does the unusual physical behavior occur in a much more *severe* way than with other children?

Does this behavior occur *repeatedly?*

If your answer to either or both of these questions is yes, and if the parents agree, referral is in order.

Recognize Cultural Differences

Identify children whose behavior seems different and determine if their behavior may be normal for their life style, and not the result of an orthopedic impairment. Since children in your classroom come from a variety of backgrounds and child-rearing experiences, it is only logical that they will react to your classroom in a variety of ways. Learning in your classroom can present a variety of difficulties to different children.

For example, a child who spends a great deal of time at home in a playpen or high chair may have trouble learning how to move around in the classroom. Or a child who comes from a home where there are few toys may have trouble using play equipment and other toys in the classroom. In such situations, the child's behavior may concern you, and you will need to help this child learn new things. But the child is simply behaving in a way that is normal given the home environment; the child is not handicapped.

Recognize Individual Differences

Distinguish between those children whose temperaments and individual learning styles you find difficult, and those children who may be handicapped. Children, like adults, can be slow or fast to catch on to things, can be quiet and thoughtful or very energetic and into everything. Some get frustrated more easily than others, some get distressed and upset more easily than others, and some demand more attention than others. It is helpful to ask yourself: "Do I find this child difficult because of individual style differences between the two of us? Or is the behavior of the child genuinely different from the behavior of other children the same age?"

44 Get Professional Help

From the child's point of view, referral is better than non-referral. This means that if you think a handicap might account for the behavior you have observed, it is best to have the child professionally evaluated. If you find out that the child does not have a handicap, no harm has been done. If, on the other hand, a handicapped child is not diagnosed, the child's special needs will not be met. Referral is also preferred over non-referral for children who have already been diagnosed: children can be incorrectly diagnosed. If a child enters your class already diagnosed, take an especially close look. Have the child re-evaluated if you have any doubts about the diagnosis.

You may have an instance in which you and the parents are concerned about a child's health. The child may have been seen by a pediatrician or health professional several times, with no improvement in his or her health. In such a situation, you may want to ask the appropriate person in your health component to help the parents seek additional medical consultation.

All children with orthopedic handicaps should be evaluated at least every year, and in most cases will need to have medical attention every three to six months. Check with parents to make sure the child's medical needs have been taken care of. If you are concerned that parents may not be following through on medical appointments and treatment routines, discuss this with your social services person.

Steps to Take

1. Find out if the standard screening tests have been given. Talk to the handicap coordinator, the person responsible for coordination of health services, or someone else in your program who you think could be helpful.

2. If the child has been screened, no problems have been found, and you are still concerned about the child, speak to the handicap coordinator, health coordinator, or social services coordinator. The parents will have to give their permission for further evaluation. Explain the professional diagnostic process and the reasons for it to the parents.

3. While waiting for a professional diagnosis:

- Talk with the parents about what they notice to help you work more effectively with the child.
- Continue to observe and keep notes to help you plan suitable activities.
- Chapter 6 discusses guidelines and ways of conducting activities for children with physical handicaps. Use them if they seem appropriate and if you find they work.

4. Find out the results of additional tests so that you can determine whether your individualized plan for the child needs to be changed. Discuss with the parents the results of the tests and any suggested changes in the services the child is receiving.

How Orthopedic Handicaps Affect Learning in 3-to5-Year-Olds

5

You will want to know more than a diagnosis.

46 ***Knowing the diagnosis of a child's handicap is helpful, but you will also need specific information on how the handicap affects the child's functioning:***

- ***How does the child use his or her body?***
- ***How does the child think?***
- ***How does the child communicate?***
- ***How does the child get along with others?***
- ***How does the child feel about him- or herself?***

This chapter discusses how the various orthopedic handicaps can affect a child's functioning and learning in these areas. Orthopedic handicaps primarily affect a child's motor functioning—either gross or fine, or both. Problems in these areas, of course, contribute to related problems in the other areas as well.

What Children with Orthopedic Handicaps Are Like

Cerebral Palsy

There are many types of cerebral palsy. This discussion is limited to a description of hemiparesis, quadraparesis, and choreoathetosis.

How Does the Child Use His or Her Body?

Hemiparesis

Children with this type of cerebral palsy have spastic muscles and limited muscle movement on one side of the body. The muscles on one side of the body move freely, while the muscles in the arm, leg, neck, trunk —and sometimes the face—on the affected side of the body are stiff and tight. It is difficult to get the affected side of the body to make the same movements as the other side. The tight leg may be a little shorter, due to lack of growth, or it may act as though it is shorter because the muscles are tensed. Often the shoulder on the affected side is pulled down into the body, the leg is stiff and pointed downward at the foot, and the arm is held close to the body.

These children look and move as though they are lopsided. They may have difficulty balancing themselves when they sit, stand, or walk. Often they drag their affected foot along as they walk, or they hobble because of their muscle imbalance.

While they may hesitate to use their impaired side, these children can become very skillful at using the unaffected side of their bodies to help them balance and move. However, favoring the affected muscles in this way may lead to further problems, since not using them makes them become even tighter.

Quadraparesis

Children with this type of cerebral palsy have spastic muscles and limited muscle movement on both sides of their bodies. Their legs and arms stiffen, pull together, and often cross at the knees and elbows. Their feet turn in and down, and their hands turn in with the palms facing outward. It is difficult for them to walk by moving first one leg and then the other. Their walk is often called a "scissor gait," because the legs and feet work like a half-opened pair of scissors with the knees usually touching. Tight muscles throughout all four limbs have the effect of pulling their shoulders in and pushing their trunk or belly downward.

These children cannot get into a sitting position when lying on their backs. When they do sit in a chair without special support, their tight muscles create a marked curve in the backbone. They often end up sitting on a narrow point of the lower part of the backbone. Their sitting balance is poor. Once off balance, they have great difficulty getting their balance again.

Their crawl, like their walk, is not done in the usual way—first one leg and then the other. Instead, they move both legs together in a kind of hop. (This movement, however, only makes their tight muscles even tighter, which further prevents them from learning the normal movement patterns involved in walking.)

When these children are excited or trying hard to perform a given task, the tense or high-tone muscles become even more tense. This can happen, for example, when they are suddenly surprised by something such as a touch or a noise, when they laugh, or when they try to do something that requires some strain and concentration, such as talking or reaching up with their hands. When they become very tense or excited, severely affected children go into what is called an extensor spasm, which they cannot control. In extensor spasms, the muscles that extend or straighten the arms, legs, and body suddenly become extremely tight, throwing the head back, straightening the arms and legs, and stiffening the body. An extensor spasm can literally push a child off a chair.

When these children are helped to balance their bodies and to relax, their performance on all motor tasks usually improves. A physical or occupational therapist can suggest ways to achieve this in children with quadraparesis.

Choreoathetosis

Children with this type of cerebral palsy have uncontrolled muscle movements in all four limbs of their bodies, and often in their faces as well. They usually also have some spasticity in their affected muscles, and some difficulty breathing. More often than not, their muscles bend or straighten out when they do not want them to. When athetoid children try to do something, their muscles may move too much, making their movements jerky. This extra movement happens because their muscles can suddenly change in tone or degree of tightness. A muscle that has contracted may suddenly relax, or a relaxed muscle may suddenly stiffen. Or, in a pair of muscles that work opposite each other (for example, in the elbow or knee), first one muscle may tighten, then the other, causing jerky movements. There are, however, degrees of grace and smoothness in muscle movements among athetoid children, just as there are among children who do not have cerebral palsy.

48 If these children try hard to move their arms or legs, the muscles in these limbs may suddenly tighten into the scissor position (see page 47). Fine motor actions like holding a crayon and drawing, or holding a spoon and scooping food out of a bowl, are very hard to control.

Grasping or holding on to things often causes athetoid children to hyperextend the muscles in their hands: their fingers stretch out straight rather than bend around the object. If these children try to flatten their hands out against a table or the floor, the muscles contract their hands into fists. Grasping may also be hard for them if they have trouble controlling their head and neck muscles.

Athetoid children also have difficulty balancing and standing up straight. The muscles in their backs may contract unnaturally, making them throw their heads back, stick out their chests, and move in a rigid, stiff pattern to try to keep their balance. Any increased tension in their muscles (which happens when they are suddenly surprised or are trying hard to do something) makes all the movements that have been described even more extreme.

Some children with athetoid cerebral palsy have tongue-thrusting problems, which may cause further difficulty with feeding and speech. Again, therapists can suggest ways to help the child relax as well as ways to help the child gain control over muscle movements necessary in motor skills such as grasping.

Postural Reflexes

The brain damage in some children with any of these types of cerebral palsy results in abnormal postural reflexes. This means that their bodies *automatically* assume certain postures when placed in certain positions. One of the more common postural reflexes is the asymmetrical tonic neck reflex (ATNR). In ATNR, turning the head makes one arm straighten and the other one bend tightly at the elbow. So just when these children want to grab something in front of them, ATNR causes their hands to move suddenly away from the object. ATNR persists in many children with cerebral palsy, and adds to their difficulties in movement control.

The control of movements involved in reaching and exploring is often difficult for the child with cerebral palsy.

How Does the Child Think?

Many children with cerebral palsy are within the normal range of intelligence, and have no particular problems in their cognitive development. This may not be apparent if they have difficulty speaking and therefore expressing what they know. For these reasons, the assessment of a child's cognitive ability may be difficult, even for persons trained specifically to assess people with cerebral palsy.

In some cases, the brain injury that caused the cerebral palsy has also affected the child's ability to think. These children may have problems organizing the information they are getting from the world around them, and translating that information into action. They may have problems remembering things that they have learned, or it may take them longer to learn something new.

There are other important ways in which cerebral palsy can affect a child's cognitive development and learning. People learn by doing. Learning by doing is particularly important in the preschool years, when development is so rapid. Looking at things and exploring them with their hands or their whole bodies helps all children answer such questions as:

- **How does this work?**
- **What happens if . . .?**
- **What does that feel like? Taste like? Sound like?**
- **What shape does it have?**

These are questions that are crucial in learning and cognitive development. If children cannot move around as much as other children do, or if they have problems using their hands to reach for and hold onto things, to touch and feel those things, then they have many fewer chances to explore the world and to figure out answers to questions like these. They have much less information on which to build their thinking, and many fewer opportunities to practice the skills that thinking and learning depend on.

Using your eyes and hands together is a very important skill in learning. Much of what people do depends upon this skill. Children who cannot make their muscles work the way they want them to, or whose muscles do something unexpected (such as the ATNR pattern already described), have many problems becoming skillful at using their eyes and hands together to explore their world. If the muscles in their eyes are also affected, this may add to their problems. And, since activity creates tension, and tension makes all the abnormal muscle movements even more extreme, learning can be a very hard and frustrating process for a child with cerebral palsy.

Cerebral palsied children with spasticity often have an additional problem in learning about their world. Many cannot tolerate a normal amount of touching and pressure on their affected limbs, because it is uncomfortable for them. This makes it difficult for them to explore things as other children do. When they do feel things, they also have less ability to explore the objects fully by means of touch. For example, they have problems telling the difference between the shapes of objects. The effort necessary to control movements in handling objects can result in frustration and a short attention span.

There are side effects of cerebral palsy that can make people treat a child as though he or she cannot think or learn. For example, affected muscles in the lips and tongue can make it hard to keep saliva in the mouth and to swallow. Children with cerebral palsy sometimes look as though they are making faces because of tense muscles in their cheeks and around their eyes. Looks are very deceiving, however. The drooling and face-making are uncontrollable, and have nothing to do with a child's maturity or ability to think, understand, and feel like other children. It is up to the teacher and

50 other children in the classroom to relate to the child as they do to other children the same age, and to set an example for everyone else in the classroom to follow.

How Does the Child Communicate?

Children with cerebral palsy often develop speech late and find it difficult to talk. In order to speak, people must control their breathing and use muscles in their tongues and lips. Children with high muscle tone may not be able to control the muscles needed to make sounds. Children with athetosis may not be able to control their breathing to create the right air patterns for speaking.

An athetoid child whose face uncontrollably grimaces often appears to be in pain or to be smiling inappropriately. Since people often communicate feelings through facial expressions, these children have the problem of not being able to express their feelings appropriately through facial expressions.

Children with cerebral palsy can also have other problems that make it hard to learn how to speak and use words. Listening is difficult for some of these children who have hearing problems, or who have difficulty paying attention and concentrating while others talk. If a child with cerebral palsy cannot speak or is difficult to understand, other people may avoid speaking to him or her. Also, if children have difficulty speaking, they may develop non-verbal ways of communicating with others. While this helps them make their needs known and interact with others, the situation can create problems. If other people let a child do this all the time, that child will be held back in developing speaking skills. A speech therapist is often needed to decide whether it would be better for a child to continue non-verbal means of communication (such as gestures or communication boards) or to encourage speech.

Asking questions is an important way children learn language. Children who cannot speak cannot ask the questions that children usually ask, such as, "What is this?" So there are many fewer chances for them to learn the names of things and the meanings of words.

How Does the Child Get Along with Others?

When a child with cerebral palsy has few chances to interact with other children and adults, that child's ability to get along with others will be affected. The child has fewer opportunities to learn all the skills that are a part of doing things with people.

Children with cerebral palsy may also have trouble being the ones to start an interaction. Limited speech may prevent them from letting others know that they want to play. Limited muscle control and/or coordination can make it difficult to get to another child's home or even to move across a room to start an activity or join in one that is already under way.

The fewer experiences a child has in sharing, taking turns, and cooperating, the less able a child tends to be in playing and developing friendships with children, and in getting along well with adults.

How Does the Child Feel About Him- or Herself?

A child's self-concept develops as the child learns to control his or her body and, in turn, the environment. Learning to draw a circle, catch a ball, or ride a tricycle—and being praised by others for accomplishments—makes a child feel good about him- or herself. Success gives a child the confidence to try even harder tasks.

The self-concept of children with handicaps develops in the same way. However, children with cerebral

palsy have more difficulty gaining control over body movements to accomplish tasks. Often the harder they try, the less control they seem to get. Progress is often slow and small accomplishments are hard to see. Such problems may make children so frustrated that they give up and decide to just "watch the world go by" without trying to interact.

The reaction of other people has a great effect on a child's feelings about her- or himself. If important adults (parents, teachers) in the child's life treat a child as if he or she were younger or less capable than he or she is, the child may not try to achieve as much as he or she could. Also, the child needs praise for every accomplishment, no matter how small, because the slow pace of progress is so frustrating.

Like all young children, children with cerebral palsy do not yet have a complete understanding of body parts and how they fit together. Because the messages to and from the senses and muscles are distorted, they may have even greater difficulty than other children. You can help the child by emphasizing the same kinds of body image activities (such as naming body parts, people puzzles) you use for all the children.

Parents, teachers, and specialists should avoid the use of "good" or "bad" when talking about a child's body. Sometimes an adult will say, "Use your *good* hand," or "That's his *bad* side." This is confusing to the child and doesn't help him to accept his body.

Spinal Cord Damage

How Does the Child Use His or Her Body?

When the spinal cord is damaged through accident or illness, or as the result of a congenital condition, such as spina bifida, paralysis and loss of sensation may result in certain parts of the body. The loss of motor functioning and sensation varies greatly from child to child. In mild cases children may have mild weakness around their ankles and loss of sensation only in their feet or toes. In severe cases there may be total paralysis and complete loss of sensation in both legs. In between those two extremes are children with varying degrees of motor functioning and sensation.

Depending on the degree of paralysis, the child will need special equipment to keep the paralyzed parts of the body positioned correctly and to aid gross motor movements. Children with paralysis only in the lower limbs can be expected to have normal movement in the upper body. They will develop normal fine motor skills once the problems of getting to and from activities and achieving a balanced body position have been taken into account. Most children with spina bifida will have the use of their arms and hands.

Children who are paralyzed in all four limbs will need the use of very specialized equipment (such as motorized wheelchairs with mouth controls). These children have very limited fine motor abilities as well as gross motor limitations.

Whatever the nature or degree of paralysis, the child's parent and physical or occupational therapist can train you in the use of any needed equipment. They can also suggest ways to set up your classroom and adapt materials to allow the child the greatest participation in the program.

52 Lack of sensation in parts of the body can create other problems for a child with spinal cord damage. Children who do not have skin sensations cannot protect themselves from too much heat or cold. For example, non-handicapped children automatically pull away from scalding water before they are severely burned. Paralyzed children often do not have such safety responses. A child who does not have skin sensations might sit in a bathtub filled with hot water and get badly burned without being aware of it.

Lack of sensation also means that, to varying degrees, these children cannot sense pain in the affected portions of their bodies. Sitting for long periods of time in one position or rubbing their braces against their legs might be causing sores, and they would never know it. Nor would they know if somehow their blood circulation had been stopped, because of the way they were sitting. Non-paralyzed people know this sooner or later because they get a strange sensation in the part of the body that has "fallen asleep." This warning signal may not be felt if it occurs in a paralyzed limb.

You may need to remind a child to change positions from time to time and to caution the child about hot radiators, stoves, and so on.

Some children with spinal cord damage may not be able to feel the sensations that tell them when they have to relieve themselves. Others may have these sensations but lack voluntary control of the muscles that allow them to hold back or release a bowel movement, and to retain or pass urine. The degree to which this ability is lost depends on the degree of nerve damage and where the nerve damage occurred.

Children who cannot feel when their bladder or rectum is full, or who cannot control the necessary muscles, need special help in toileting. There are several approaches that may be used. Young children may simply wear training pants or diapers with rubber pants to keep them from wetting their clothes while they are learning special ways to control themselves. A program to suit the needs of a particular child is usually worked out between the doctor and family. Sometimes the preschool may have to be involved. If so, the doctor, nurse, or parents will train you in the necessary techniques or scheduling.

How Does the Child Think?

Children with spinal cord damage exhibit the range of cognitive abilities that is found in the general population. Some are very bright, some are not. Many are average.

Children with paralysis may not have had as many or as varied experiences as other children, since their ability to move is limited. This means that their cognitive skills may be less developed than those of nonparalyzed children of the same age. For example, paralyzed children may have *heard* about "the store" but may not have been able to go shopping with their families. Or they may have *watched* other children playing games outside but not actually have played the games themselves. The lack of experiences would be particularly true of children who gain information almost entirely from what they see and hear.

How Does the Child Communicate?

Speech and language in children with spinal cord damage should be normal, but may be somewhat delayed. They may have a smaller vocabulary, simply because they have had less firsthand experience with the world. However, teachers and parents can greatly help a child with this problem by providing opportunities to expand the child's experience.

On the other hand, some of these children use speech and language well at a very early age. This may lead you to expect more mature behavior from a child, or to overlook motor skill needs, even though that child may be behind his or her age group in these areas.

How Does the Child Get Along with Others?

Since children with spinal cord damage have limited ability to move about, they may be dependent on others to come to them to initiate a conversation or to start an activity. Since they probably do not have any difficulty talking, however, you should encourage them to start conversations or to make their desires or needs known.

If children have had little opportunity to play with other children before entering Head Start, they may need help in learning to cooperate, to take turns, and to share. If children's parents have been very protective of them, those children may feel that adults and children in the program should wait on them and baby them, when what they really need to be learning is to do things on their own.

How Does the Child Feel About Him- or Herself?

Many young children with spinal cord damage are as happy and outgoing as other children their age, especially if they have lived with their condition since birth. If severely affected, a youngster may have been frustrated by not being able to do the same things as other children, without being old enough to understand why. Whether the child feels guilt or self-blame for these problems depends greatly on the attitudes of those around him or her.

Children with sensory loss tend to ignore the affected side or part of their body. This means that they form a distorted and inaccurate body image. You can help the child by emphasizing games and activities you use to help other children develop body image. These may include naming body parts, people puzzles, songs like "Hokey Pokey," and other games.

54 Arthritis

How Does the Child Use His or Her Body?

The motor functioning of children with arthritis depends on the location and severity of the stiffness and swelling. If the stiffness and swelling occur primarily in the knees or ankles, the child will have difficulty with most gross motor activities. If the condition affects the hands, fine motor tasks will be difficult. In extreme cases of arthritis, there may be deformities in the affected joints, or muscle contractures that are not likely to improve. This can permanently hamper a child's ability to move.

Not only do the severity and location of the arthritis vary from child to child, they also vary from day to day in the same child. During one part of the day the child may be able to perform most tasks, and a while later or the next day any movement of the affected joints may be extremely uncomfortable. Arthritic joints are often stiff during the early hours of the day. With the application of warm compresses or play in warm water, and with general movement, the muscles around the joints relax and the joints loosen and become less stiff. Sometimes when an arthritic child has been very active, the joints become swollen and the surrounding muscles become tense and tight. After some rest, this temporary flare-up usually decreases. Sometimes, however, the swelling becomes so severe that the child has to remain at home.

As the child's teacher, you should assess his or her condition at regular intervals during the day to find out whether the child is especially stiff or fatigued, and make appropriate adjustments in the program. You should do this through observation as much as possible. Asking "Does it hurt?" puts over-emphasis on pain, and the child may learn to respond "yes" even when pain is not there.

There are many children with arthritis who show few outward signs of their condition. However, they must follow certain procedures to avoid harming themselves. This may be hard for the teacher and the other children to accept, because the child often appears to be fine.

Rest periods can be hard to enforce, but they are an important part of the preschool day.

Rest

It is important that children with arthritis have a regular rest period each day. It is often hard for teachers and parents to enforce rest periods — especially as the child gets older. At the preschool level, however, the teacher can get the child to rest more easily if the whole class has a rest period together.

Protect Joints from Stress

Children with arthritis should not take part in any gross motor activity that causes jolting of the joints. This would include jumping rope, jumping down from a chair or jungle gym, or sudden starting and stopping in games involving running. Activity involving smooth movement should be encouraged, however. Children with arthritis can benefit greatly from such activities as swimming, bike riding, and walking.

Limit Fine Motor Activity

Extensive use of the fingers and hands in fine motor activities such as crayoning and cutting and pasting is not recommended for children with arthritis. Such activities should be done for short periods of time, and not at all when joints are stiff. It is helpful to alternate or precede fine motor work with play with warm water, soft clay, and so on.

How Does the Child Feel About Him- or Herself?

Like any young child with a chronic illness, arthritic three- to five-year-olds may have questions about themselves. Because they don't understand diseases and their causes, they may feel that they have done something to bring on the condition. You may need to reassure such children that they are not at fault.

How Does the Child Think and Communicate?

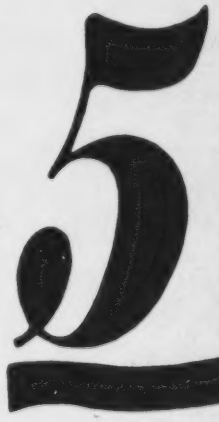
An arthritic child's language, speech, and cognitive development are similar to that of other children.

How Does the Child Get Along with Others?

Many arthritic children get along fine with other children and with adults. It is fairly common, however, for there to be some difficulties in this area. This can come about quite normally, because of the nature of the arthritic condition. Stiff muscles and swollen joints can make a child irritable. In addition, during those times when swelling flares up, the child may not be able to play as actively as other times. Such variation in mood and capabilities from day to day (or even hour to hour) may make it difficult for the child to get along well with others.

It is hard for preschool-aged children to understand and cope with unpredictable changes. An arthritic child may find it difficult to stop doing something in order to rest swollen joints. The other children may also be frustrated or not understand if their friend has to leave a game or activity one day, when the day before the child had no trouble.

There may also be times when the condition will flare up to such an extent that a child has to miss days of preschool. As with any child, such absences can interfere with the development of friendships, as well as the child's entire educational program.



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Amputations and Severe Burns

How Does the Child Use His or Her Body?

Children who have lost a part of the body through amputation or severe burning can have general difficulties in using their bodies. These youngsters may need to be encouraged to utilize the remaining parts of their bodies to compensate for whatever portion is missing or cannot be used because of permanently tight muscles or joints. This can include learning to wear and take care of an artificial limb. The teacher and a physical or occupational therapist can be especially helpful in this regard, by insuring the proper fit of a device, and by appreciating that at times adjustment to the use of an artificial limb may cause soreness and pain in the remaining part of the limb.

Some children are born with arms, legs, hands, or feet missing, or with such severe deformities that amputation has been performed. These children are often fitted with an artificial appliance that can help the child develop muscles and strength in the remaining extremity(ies), and symmetry of the overall body posture.

How Does the Child Think and Communicate?

Unless the amputation or burn is so severe that the child has had little experience with the environment, development of thought processes should be similar to that of other children in your classroom.

Speech should also be normal, unless the amputation or burn directly affects the speech mechanisms (lips, tongue, vocal cords).

How Does the Child Get Along with Others?

Disfigurement, especially facial disfigurement from burns, may produce negative attitudes in classmates as well as in adults. An understanding and accepting attitude on your part can help the other children accept the disability. Children are often more straightforward in their questions and explanations than adults are. If a child is somewhat accepting of the handicap, he or she may act as a "teacher," explaining what happened and how the prosthetic device (if any) works. Touching the disfigured area often helps to satisfy young children's curiosity. Once curiosity has been satisfied, the children will probably play together like all other children.

How Does the Child Feel About Him- or Herself?

A child may have feelings of inhibition about her or his body. The attitudes of others or the child's own feelings may make him or her feel deformed, unattractive, or the object of curiosity. The child may wish to hide the remaining part of a limb. You can help by encouraging the child to use all parts of his or her body. Emphasize that the important thing is to increase gross and fine motor skills, even if one must use different parts of the body or special devices.

In most orthopedic conditions, the handicap has existed from birth or has come on gradually. A severe burn or amputation creates a *sudden* change in a child's body and in his or her ability to use some parts of the body. Such a dramatic change in a preschool-aged child naturally causes feelings of loss, frustration, anger, fear of whatever caused the burn or amputation, fear that more parts of the body will be taken away, or concern that the burn or amputation is a punishment for something the child did. Some children need to be helped to cope with these and other related

feelings in order to gain a healthy sense of self and maximum use of their bodies. You should be aware of these feelings and be ready to reassure the child that the program is a safe place to be or that the loss did not occur because the child was bad. Some children may need additional help to accept their loss. Consult with the parents and social service staff if you feel a referral is necessary.

Muscular Dystrophy

How Does the Child Use His or Her Body?

There are many types of dystrophy that can affect children. In Duchenne type, the body develops normally for a period of time, and then at some point progress is reversed. The muscles in the body that are used for moving and maintaining posture begin to deteriorate. The process, however, is slow and varies from child to child. By age four the child may begin to walk with a slight limp, stumble, or have difficulty getting up from a sitting position on the floor. The child's problems in moving about will require the supportive assistance of a physical therapist and, eventually, the use of special equipment such as wheelchairs.

How Does the Child Think, Communicate, and Get Along with Others?

The child's ability to think, talk, and play is usually very similar to that of other children. Muscular dystrophy does not interfere directly with a child's ability to learn. Lack of mobility and of opportunities to interact with others can, however, limit a child's social and cognitive development. Even though the child's physical problems will increase, it is important to encourage the child to continue to participate in preschool with as few limitations as possible. This will allow him or her to develop socially and cognitively.

How Does the Child Feel About Him- or Herself?

Since dystrophies are progressively degenerative, a child may be able to do something one week and unable to do it the next. This can be extremely frustrating to the child. At preschool age, however, the child's problems are probably relatively slight, and his or her self-concept should not have suffered.

On the other hand, you and other adults in the child's life understand the implication of the disease and its eventual outcome. You naturally may feel helpless or very sad when dealing with the child. It is important that you treat the child normally so that he or she does not sense your feelings. You may want to ask for assistance in dealing with your own feelings or those of parents and staff from your social services component.

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Mechanical Aids and Equipment

Being able to sit, stand, walk, and use one's hands to explore the world has to do with more than just physical achievement. These abilities are also important prerequisites to a child's social, emotional, and cognitive development. Since children with orthopedic handicaps need help in sitting, standing, walking, and using their hands, these problems must be considered first in attempting to strengthen other developmental skills. By helping the child achieve physical balance in activities, the child can give more energy to other learning aspects of the activity. Mechanical aids, special equipment, and knowing how to help a child position his or her body for maximum use are ways to help the child achieve physical balance.

This section provides some useful information on mechanical aids and equipment; Chapter 6 discusses positioning in detail. The information in this book, however, is general. The needs of each youngster will be different, depending on the child's specific condition and on how severely it has affected physical abilities. You will need assistance and guidance from specialists (such as physical, occupational, and speech therapists) to help you find the best positions and adaptations of equipment for each child. Chapters 2 and 7 provide information on locating and working with these specialists. Parents can also explain how you can help their child use his or her special aids and equipment.

You might arrange a try-out period before the program begins, so that you, the parents, and child can get acquainted with how to use the equipment in your particular building and classroom.

You may find it time consuming to learn about mechanical aids, equipment, and positioning. As you become more familiar with the aids and positioning and have practice making equipment adaptations, you will find that the techniques become almost second-nature, allowing you to focus more on the child's performance in other areas. Remember that one purpose behind the use of special aids and equipment is to free the child from dependence on others for his or her every need. The efforts you put into learning about aids and adapting equipment will pay off in increased independence for the child (which also means more independence for you).

There are many types of mechanical aids used by orthopedically handicapped children. Wheelchairs, walkers, wheeled carts, canes, or crutches help children to get around the building, classroom, and playground. Other common types of mechanical aids are braces, helmets, artificial limbs, and specific self-help aids adapted to help a particular child eat, communicate, play, and perform other activities of daily living as independently as possible.

Wheelchairs

Wheelchairs are widely used. The chair should be equipped with a seat belt; fasten it whenever the child is in the chair. Always push the chair at walking speed, so that you have complete control.

When a curb or step appears, tilt the chair back by stepping on the extension at the base of the chair and ease the front wheels onto the higher surface. Going down a curb is sometimes more difficult, particularly since some children are afraid of falling out of the chair. You might ask the child's mother or father for tips on how to do it. Or ask the child for suggestions. If you turn the chair around as you go down a step or curb, hold on to the handles, and go to the lower level before the chair does, the child will probably have less fear of falling. Some children feel more comfortable when two people are present: one in back of the chair and one in front of the chair guiding the chair as it is lowered. This is a great help when going down more than one step. If you can get an adult-sized wheelchair, you and your staff can practice these procedures on one another. This practice will help you identify and solve problem situations in advance.

The main technique for assisting a child from a wheelchair to another seat is called **forward transfer.** When the child is moving from a wheelchair to a regular chair at a table, be sure that the chair the child is moving to is steady. You might have to hold it or brace it against a wall. Steadiness is particularly important if the child is moving to a seat or toilet directly in front of him or her. To transfer to a chair, the wheelchair must be positioned so that it faces the seat, with the footrests up and the brakes locked securely. The child should then place his or her feet to one side of the chair and slide forward onto the chair. After the wheelchair has been pulled out of the way, the child can scoot his or her feet around to the chair front.

If a child is going to a toilet seat, the front wheels can be right up against the toilet. Put the footrests up and lock the brakes. Then have the child slide right onto the toilet facing the back of the toilet. After toileting, the child can then slide back toward the wheelchair, grab hold of both armrests, and lift him- or herself back into the wheelchair.

If a child cannot lift or slide him- or herself to the chair or toilet, you will have to assist. Place the wheelchair at right angles to the seat, lock the brakes, and raise the footrests. Next, bend your knees (keeping your back straight), and put your hands under the child's armpits. Stand up and turn your body so that you are facing toward the seat to which the child is going. With this pivot movement, you can place the child with his or her back to the receiving seat, and lower the child to that seat as you again bend your knees. By all means, ask the physical or occupational therapist to demonstrate the most appropriate way to assist the child.

Walkers

Walkers are also important in helping children move about independently. There are several types of walkers available. Some of them have four wheels, which make them quite easy for children to push. Other children use a walker with two parallel railings and an enclosed front, so that they have support on three sides as they move about.

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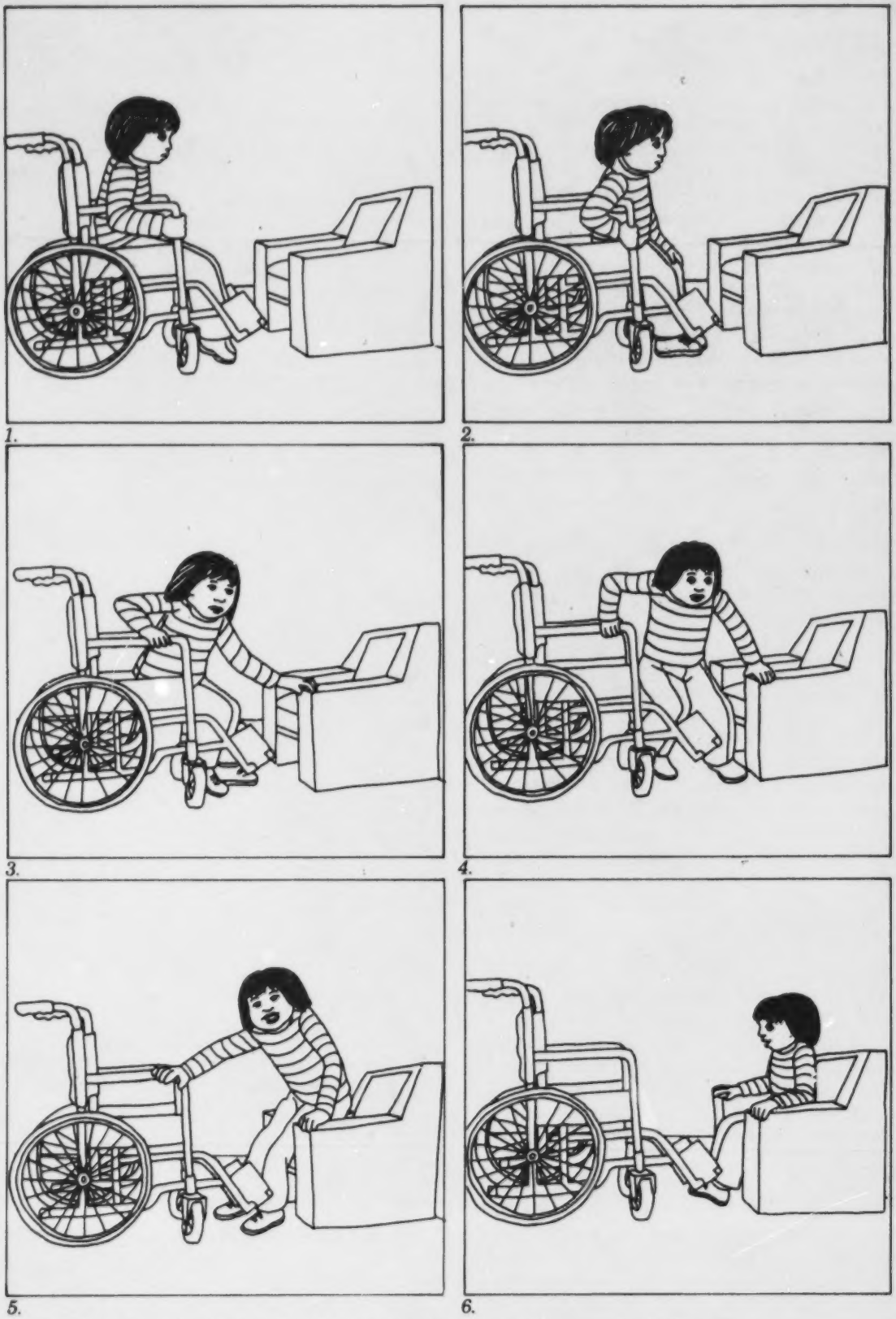


The forward transfer is the most common technique used by preschool children.

Other Traveling Devices

Young children are often happier getting around on devices near the floor (rather than in wheelchairs). There are several types of small, hand-propelled carts, which enable children to play more freely with other children and toys. A child may lie on his stomach on a board with four casters underneath, and push himself around with his hands and arms. Parents may have a cart the child could use in the classroom, or you might try to obtain one from, for example, the Easter Seal Society. (See Chapter 7 for the address and a description of what is available.)

Canes and Crutches

Children who walk quite well but sometimes lose their balance might use one or two canes. Canes come in a variety of forms. Some of them look like tripods, with three points of contact with the floor. These, of course, provide considerably more support than ordinary canes do.

Crutches come in two major varieties. Canadian crutches are shorter than the more traditional ones. These crutches have bands around the arm, above or below the elbow, with the handles at waist height. Regular crutches extend all the way up to the armpits.

There are two ways of walking with crutches. Some children appear to take natural steps in a four-point gait (crutch/foot/crutch/foot), while others place their crutches on the floor ahead of them and swing their bodies up to the crutches or beyond them. You should find out from the child's parents, physical therapist, or physician the most appropriate way for a child to walk.

Braces

Braces are mechanical devices made of metal bars and bands. They are designed to prevent deformities, to hold a part of the body in place, to protect it from further injury, or to provide support. Ankle braces are inserted into the sole of a child's shoe, which may make it impossible to move the ankle, or which may limit the amount the ankle can move to facilitate walking. A few children may have long leg braces, which extend the length of the leg to include the knee and thigh. These may have bands around the pelvis, with locks at the knees and hips. The lock joint has a sliding catch that fastens the brace, so that the lower part of the body is held stiff for walking. When the child wants to sit, he or she must release the catches in order to bend at the knees and hips. For most children, locking and unlocking braces becomes a regular part of their daily living. If the youngster cannot as yet handle this task, you will want the child's parent or physical or occupational therapist to show you how to do it.

Helmets

Children with poor balance sometimes wear helmets to protect their heads from injury during physical activity. Since wearing a helmet may make the child feel odd or different, the negative effects will need to be weighed against the possibility that a head injury will occur. A physical or occupational therapist should make the decision concerning whether and at what times the child should wear a helmet. If a child does need a helmet, the therapist can help locate a special lightweight helmet that the child will find attractive.

62 **Artificial Limbs**

Artificial limbs (prostheses) are used by some children who were born without an arm or leg, or who lost a limb later on. The prosthesis enables the child to get around, makes it possible for him or her to do things that other children can do, makes the child look more like his or her friends, and allows the body to develop symmetrically. The type of artificial limb that a child needs depends on how much of the arm or leg has been lost. In general, if the loss is in the lower part of the limb, the artificial limb will function more normally than otherwise. Children with leg amputations usually receive specific instruction in how to walk as normally as possible. In some instances, they come to the program using canes or crutches. It is important that the child wear and use the artificial limb(s) all day (unless otherwise advised), in order to learn to use it effectively and to accept the device as part of his or her body. It is also important because a preschool child is growing rapidly and may not develop symmetrically if one part of the body is seldom used.

An artificial hand may simply be two hooks that open and close. An occupational therapist may be involved in training the child to use this hand. Since this type of hand occasionally needs adjusting, it is wise to talk to a therapist about how to do so. Although the appearance of the device may take some getting used to, its use often improves a child's gross and fine motor skills so greatly that he or she can participate in nearly all activities.

A major concern is children's complaints of discomfort, especially in the remaining part of the limb. Some discomfort is to be expected. But if a child complains often, be sure to inform the doctor or physical therapist and the child's parents.

Equipment Modification

In addition to the mechanical aids discussed above, there are some common equipment changes with which you need to be familiar. These include modifications of things you presently have in your classroom, such as tables and chairs, and some equipment you may have to make or buy, such as bolsters, wedges, and lap trays. Other suggestions for changing your classroom equipment and materials to meet the needs of orthopedically handicapped children are given in the activities section of this book. You should consult with a child's physical or occupational therapist to learn how to position the child properly.

Special Seating Arrangements

Children with poor sitting balance need some chair modifications. Others need special seating arrangements. In some cases you simply need to obtain a chair with regular arms, or with sides that are high enough to prevent a child from falling to one side. A high-backed chair can serve to keep a child's head upright and his or her trunk supported. Sometimes propping small pillows in the chair on each side of the child provides enough support.

In order to permit the child to play on the floor, several different seating arrangements are often recommended. For example, the legs of an old chair can be removed and the chair seat and back placed directly on the floor. To further support a child, a small board can be attached to the center front edge of the chair, to keep the child's legs apart and in appropriate alignment. A seat belt fastened at hip level is often useful. Sometimes just arranging for a child to sit in a corner with two walls as support is what the child needs. Some children need small sandbags placed along the side of their legs to keep them straight while the child is engaged in activities.

Bolsters and Wedges

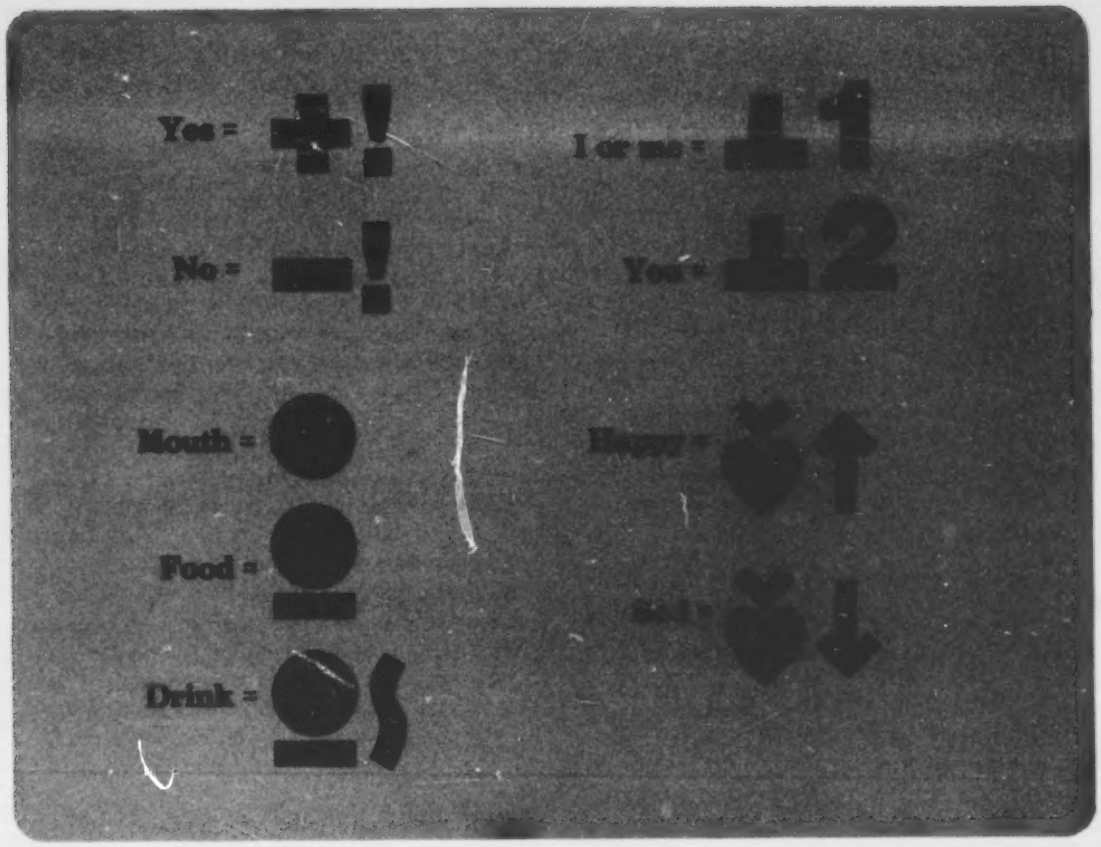
When sitting or standing is too difficult or tiring, a child can lie on his tummy with his chest and arms over a bolster or roll so that he can have his arms free to use in water or sand play. This position can help the child improve his head control while his body is in proper alignment. For some youngsters, a physical or occupational therapist may recommend lying on a slanted wedge that supports the entire body. It may be advisable to fasten a seat belt around them so that they won't slip off the wedge when reaching out to play with toys or look at books.

Trays

Whenever possible, an orthopedically handicapped child should be able to work and play at the tables in your room with other children. If a wheelchair's arms are too high to fit under the tables in your classroom, certain modifications are possible. You might be able to remove the ledge under a table to make more room for the arms of the wheelchair. Or you could raise the table by placing blocks under the legs. If the chair cannot be brought up under the table at all, place a tray over the chair's arms for use in eating, playing, and working.

The tray can also be used as a **conversation board** for children who can hear and know what they want to say, but cannot speak clearly. Teachers, working with parents and speech or occupational therapists, can enable a child to answer questions by pointing to or looking at the responses "Yes," "No," or "?" which are consistently placed on the board. If the child does not yet recognize words alone, a system has been standardized for use in this way called Bliss symbols. For example, +! means "yes," -! means "no," O means "mouth," Q means "food," and QS means "drink." Sources for Bliss symbols are listed in the bibliography.

Bolsters and wedges can be used to support the child in a prone position.



Doll Carriages and Tricycles

Since balance is difficult for some children with orthopedic handicaps, it is often a good idea to let them push a *weighted* doll carriage or wheelchair. With your guidance, another child might sit in the wheelchair while the handicapped child pushes it, so that the latter can get a sense of what it's like to "stand on the other side of the fence."

A frame can be added to a tricycle seat so that a child has trunk (waist) support while sitting. The pedals can be fitted with straps to hold the feet in place while pedaling. You might pull the child on the tricycle slowly, until he or she feels and develops the proper leg movement.

Handling Curiosity

It is natural for children to be curious about wheelchairs, crutches, braces, and the like. While this curiosity should not be discouraged, it should be *limited.* The equipment an orthopedically handicapped child uses should be considered his or hers. It should not be borrowed by other children. A good way to handle children's curiosity is to have two pieces of identical equipment—one for the handicapped child to use and one for the other children to try out. Often associations such as the Easter Seal Society or the Cerebral Palsy Association can loan you used or outdated equipment for a while, which you can use for this purpose. If you need to cut off the legs on a chair, you might do this to one or two of the older chairs in the classroom, for the other children to try out. You may find it helpful to have extra pillows and bolsters for everyone to use.

Medication, First Aid, and Fire Drills

Medication

Some children with orthopedic handicaps must receive medication daily to control their conditions. For instance, a child with arthritis may need aspirin daily. A child with brain or spinal cord damage who also has seizures will need anti-convulsant drugs (medicines that prevent seizures). Children who have poor control of the muscles involved in breathing or urinating are often more susceptible to infections, and need to take antibiotics to prevent or control such infections.

Usually these medications can be administered at home before and after preschool. In some instances, however, arrangements have to be made for the child to take the medicine while at the Head Start program. Project Head Start's policy on the use of medication in Head Start programs is:

> **Whenever possible, arrangements should be made for the family and the physician to schedule administration of medication during times when the child is most likely to be under parental supervision. Otherwise it is the responsibility of the Head Start director or his designee to supervise the administration of medication in accordance with state requirements as to specific personnel who are designated to dispense drugs and be accountable for them. In addition, over-the-counter drugs (e.g., aspirin, nose drops) should be administered only by personnel who are knowledgeable about their use and side effects. Other drugs must not be given unless they have been prescribed by a physician for a particular child. All medication must be adequately labeled. Drugs must be stored out of the reach of children and prescription medications must be kept under lock and key. Before any medications are administered, recorded parental consent must be on file. Special precautions are of particular importance when treatment for a specific handicapping condition requires administration of potentially harmful drugs (e.g., anticonvulsants, amphetamines).**
>
> (Transmittal Notice, Head Start Policy Manual, 2/28/73, pp. 9-10.)

What You Should Know

1. You should always be informed when a child begins to take a drug, and when the dosage is changed.

2. You, the child's parent, and any other person responsible for giving the drug need careful instructions about how, when, and how much to give, the side effects to watch out for, and the expected effects on the child's behavior.

3. You, the child's parent, and the doctor must keep in close touch with each other to compare notes about how the drug is working. You may be asked to keep very careful records of a child's behavior when medications are being evaluated or changed.

4. You should know whom to call with questions (usually a nurse, or the child's own doctor) or in case of emergency.

5. The drug must be kept in a safe place at home and the parent must be truly reliable about giving the recommended dose at a regular time.

66 Nothing is more confusing to a child or his or her teachers than to take a drug irregularly. One day the child seems well and able to participate; the next day the same child feels bad and is unhappy with everythng and everybody.

First Aid

First aid is the first care given to a child who has been injured or who suddenly becomes ill. You must be prepared not only to take the correct actions to assist, but also to do them in a way that does not frighten the injured or ill child or the other children in the class.

Children with orthopedic handicaps suffer the same types of bumps, bruises, cuts, headaches, and falls as other children. In addition, they may have special emergency problems that are related to their handicap.

So that you can handle general problems quickly and well, *review* simple first-aid procedures frequently. Use any of the first-aid books listed in the bibliography to help you do so. Know what to do *before* something happens. You should know the following treatments, for example, off the top of your head:

- Small burns are treated with ice.
- Cuts are held firmly with clean material (cloth, paper) until the bleeding stops.
- Bloody noses are best treated by pressure on the outside of the nose and by keeping the child quiet.
- Falls are handled by keeping the child *where he or she fell* until you feel reasonably sure no bones are broken. First ask the child if there is pain anywhere. If there is none and the child can move his or her body, chances are nothing is broken. If the child has pain in a particular area, carefully check for obvious signs of a problem, such as redness and swelling. Refer to a first-aid manual at this point, and follow directions carefully.

All teachers who work with children should have first-aid training, if at all possible.

The most common emergency problems related to orthopedic handicaps are seizures, choking, and blocked shunts. To avoid feeling helpless or panicky when such emergencies occur, study the proper procedures in advance. Review these procedures with a child's parents and doctor, and have this information readily at hand to remind you what to do. Also have a list of phone numbers to call—and a plan to follow if people can't be reached by phone. This preparation will help you be effective and remain calm during emergency situations.

Seizures

Seizures are best handled by allowing the affected child to lie where he or she is when the seizure begins, or to lower him gently to the floor, and then see that he doesn't injure himself against things in the room when he jerks. A seizure *cannot* be stopped; therefore ***Do not try to stop the child's jerking and do not put anything in his mouth.*** If the child is known to have a seizure problem, proceed with the plan you have worked out ahead of time with the doctor and the parents. If this is the child's first seizure, ask for the nurse's assistance via phone or messenger. If the nurse is not available, call another adult to assist with the other children while you attend to the seizure. If the jerking does not stop within two to three minutes, call the child's parents and/or doctor. If the child has two seizures, one right after the other, this could indicate a medical emergency. An ambulance should be called immediately for emergency room attention. This situation happens *very rarely.* If you are requested to transport the child, two adults can easily carry him suspended in a blanket or in their arms. If the child is being carried, make sure his chin is *not* down on the chest—the head should be back and the jaw pulled *forward.*

Do not give any medicines by mouth to a child having a seizure. When the jerking stops, the child may want to rest for a few minutes to a few hours. This is natural and should be allowed.

Seizures are not painful. A seizure is probably more frightening to the people watching it than it is to the child who is having it, because during the convulsion the child is unaware of what is happening. Afterward, however, the child may be frightened by the realization that a seizure may occur at any time. You may wish to spend some time talking privately with the child. The discussion will allow you to give reassurance and support to the child, and will provide an opportunity to seek some clues as to why the seizure took place.

Keep a record of when seizures occur. Always report them to parents and to the program nurse or the child's doctor if requested to do so.

More detailed information on seizures can be found in the book in this series entitled **Mainstreaming Preschoolers: Children with Health Impairments.**

Choking

Children who have difficulty speaking and eating may also be more prone to choking than other children. When food or a foreign body is sucked into the windpipe, the victim is unable to talk, turns blue, and can die within minutes. The technique described below forces air from the lungs up the windpipe, to dislodge whatever is blocking the windpipe and thereby restore breathing.

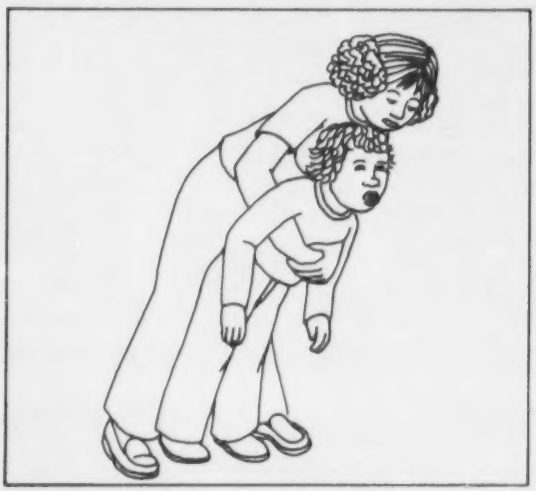
1. ***If the child is standing,*** support his or her chest with one hand, and with the heel of the other, give the child four rapid, forceful blows between the shoulder blades. ***If the child is lying down,*** place your knee against his or her chest for support, and administer blows.

2. ***If the obstruction is not cleared,*** wrap your arms around the child, with the thumb side of your fist against his or her stomach between the navel and the rib cage. Grasp your fist with your other hand and make four quick, upward thrusts. Repeat if necessary. Watch breathing closely.

These steps are illustrated on the following page.

If the child is standing, support chest and give four blows between the shoulder blades.

If the child is lying down, support child's chest with your knee and administer blows.



Use this "hugging" technique if blows to the back do not dislodge the obstruction.

Blocked Shunts

A child with a shunt should have regular checkups at three-month intervals. The shunt is not noticeable and need not be of daily concern to a teacher. Take normal precautions to avoid sharp blows to the head, as you do with all children. A child with a shunt may be uncomfortable, however, lying on his or her back.

Sometimes a shunt stops working properly. The signs usually build up over a number of days, and include such things as vomiting, sudden lethargy, or fussiness. As with any child who becomes ill at preschool, you should notify the parents and, possibly, consult a doctor.

Fire Drills

Head Start regulations and local fire laws already require you to follow certain procedures for fire emergencies. If there are orthopedically handicapped children in your class, however, you will need to give further consideration to ways of exiting from your building. Many such children are unable to move quickly or without adult assistance. Practice exiting from the building until you feel certain that you can get all the children out in the required time.

Chapter 6:

Mainstreaming Children with Orthopedic Handicaps

6

Mainstreaming means being included.

This chapter can help you plan and carry out mainstreaming experiences for children with orthopedic handicaps. Included are guidelines for planning, ideas for classroom arrangements, and teaching tips and activities to assist you in mainstreaming children who are orthopedically handicapped.

Project Head Start stresses that all handicapped children, regardless of the severity of their handicap, should be considered for enrollment in Head Start if the particular program can meet their needs adequately. On the other hand, not all handicapped children are best served in Head Start programs. Both the resources within your program, including available staff, and the resources in your community determine what you are able to offer children. This means that you, the total Head Start staff, and a physician or other appropriate professional should participate in the decision. If another setting would be better suited for meeting the child's needs, Head Start may be able to assist in the alternative placement.

Orthopedic handicaps range from mild to severe. But all will require extra effort in planning the child's educational program and in making adaptations of equipment for the child's use.

The Teacher in Mainstreaming

You may need an additional aide and some extra planning time to enable you to treat a child with special needs in nearly the same way that you treat other children. The speech, feeding, and movement of orthopedically handicapped children should be checked by specialists in speech and language, occupational therapy, and physical therapy. These specialists can then help you and the parents develop the best program for the children. Of course, each child should always be under the continuing care of a pediatrician.

Children with less severe orthopedic handicaps require less constant special care, but you will still need the advice of parents and specialists in adapting the classroom to meet the child's needs. Occasionally, severely or profoundly orthopedically handicapped children may be enrolled in a Head Start program. Children who are this limited often require very special consideration. In some cases, you may need continual input from a physical or occupational therapist.

With any orthopedically handicapped child in your class, there are some important steps to take.

1. Get to know the child. Learn the child's strengths as well as needs. Learn what you can reasonably expect from the child in terms of motor activities so that you will know how much or how little help he or she actually needs. Ask physical and occupational therapists about the child's degree of independent functioning.

2. Get to know the child's parents, and work together with them. They may have valuable suggestions. You can provide them, in turn, with ideas you have found useful in working with their child.

3. Learn all you can about the handicap. Read enough about it so that you feel comfortable, prepared, and confident. Talk to teachers, parents, and friends who have worked or lived with children with orthopedic handicaps.

4. Seek out advice from doctors and physical and occupational therapists. They can answer questions about positioning, and about any special equipment you need to work best with the child. In many cases, correct positioning is needed for the child to develop to his or her fullest potential. Some incorrect positions can actually do harm.

5. Avoid being overprotective, but be alert to the child's needs for support. If you do things for children that they can do on their own, the success is yours, not theirs. And if you ask them to do things they aren't yet capable of, they will fail. The best encouragement for learning is success. You can create the circumstances that make this not only possible, but likely.

Planning

The planning process for a child with an orthopedic handicap has the same purpose as planning for other children: to help you map out a course of action for working with the child. The process calls for the involvement of several people: the teacher, the parent or parents, Head Start staff representing the various service components, and outside service providers.

The goal of the planning process is to produce an **Individualized Education Program** (I.E.P.) for the child, which is now required by Public Law 94-142, Education for All Handicapped Children Act, and required by Head Start Performance Standards. Based on an evaluation of the child, the Individualized Education Program states the child's present level of educational performance, the annual goals and short-term instructional objectives for the child, and evaluation procedures for determining whether instructional objectives are being achieved.

6

72 *For each handicapped child* Project Head Start requires the following elements in the planning process:

1. An interdisciplinary team is required to make two kinds of diagnoses: a **categorical diagnosis** and a **functional diagnosis.** A categorical diagnosis is simply a statement of the kind and severity of the child's handicap. This kind of diagnosis is useful to you only for reporting or record-keeping purposes. The team also should develop a functional diagnosis, or assessment, which is useful to you in your classroom planning and teaching. It is a developmental profile that describes how the child is functioning, and that identifies the services the child requires to meet his or her special needs.

2. Based on the functional assessment, an **individualized education plan'** is to be developed for the child. This plan describes the child's participation in the full range of Head Start services, and the additional outside services that will be provided to respond to the child's handicap.

3. Periodically, **ongoing assessments** of the child's progress are to be made by the Head Start teacher, the child's parents, and (if needed) by the full diagnostic team. If these re-evaluations show that the child's individualized education plan or the services he or she is getting are no longer appropriate or needed, they should be changed or adjusted.

4. When the child leaves the program, Head Start should make arrangements for the **continuity of needed services** in elementary school. This can be done in a variety of ways, but usually involves holding a conference with parents, the school, and service providers. The elementary school should be given a description of the services the child has been receiving, recommendations for future services, and the child's records from Head Start.

As the child's teacher, you are involved in many of these procedures. Your part in the process is described in more detail in the following six steps. These steps are just as useful with non-handicapped children and other handicapped children as they are with children who have orthopedic handicaps.

Step 1: Observe each child in a variety of activities, and record your observations.

Step 2: Set objectives based on what you have observed as reasonable for the child to achieve.

Step 3: Select classroom activities and teaching techniques that can best help each child reach the objectives. Seek outside assistance as needed.

Step 4: Develop the plans with the child's parents and specialists.

Step 5: On a continuing basis, observe, evaluate the child's progress, and develop new objectives.

Step 6: When the child is ready to leave Head Start, make plans to ensure that there is continuity of needed services with the public school.

Each of these steps in the planning process for handicapped children is discussed in greater detail below.

Step 1:

Observe

The process and purpose of observing is the same for all children. The purpose of observing a child is to identify the child's **developmental level**—the level at which the child is actually functioning. This can tell you much about the child as an individual. Progress is made by building on the child's strengths and working on areas that are weak. As you observe the child in a variety of activities, you should take careful notes. Another name for this process is assessment, or evaluation. Evaluation is particularly necessary and useful to the planning process because it makes you aware of the basis for what you do in the classroom.

How to Observe

Observation is a technique of focused looking and listening to what people say and do. Using observation as a tool for learning about children involves being systematic, watching for patterns, and using the information.

There are some general tips that can help you be systematic as you observe.

1. Note details

It is very important to write down specific, detailed observations that focus *exactly* on what the child does. For example, if you write down, "Alan spilled his milk," this might mean that he was angry, wasn't paying attention to what he was doing, was awkward, had a problem with his arm or hand muscles, or a number of other possibilities. However, consider this version: "Alan reached for his milk cup with both hands.

74 The closer he got to the cup, the more his arms trembled. Finally, the trembling made him knock over the cup." These notes would be immensely helpful both to you and to a trained diagnostician, who would recognize that they could indicate a serious physical problem.

2. Write down the details as soon as possible

Write down what you see as soon as possible, since it's easy to forget quickly the details of a child's behavior in a particular circumstance. Details are important: they describe a child's individuality. They are also the best indicators of a child's strengths and weaknesses. When you make notes, try not to be obvious about it. Write them down away from the child.

3. Plan a realistic schedule

Your observations should be scheduled, just as your activities are. Observe and make notes as often as necessary to get a full picture of what the child does easily and has problems with in the skill area you are focusing on.

4. Vary the settings in which you observe

Children can behave differently in different activities and moods, so it's important to observe a child in a variety of situations. Observe the child on the playground and in the classroom. Observe the child as he or she plays alone, with other children, and with you and other adults. Observe the child when he or she is feeling happy, sad, tired, rested, friendly, and angry, because these feelings affect the child's behavior.

5. Vary your observer role

You might also try to vary your role as an observer. You can act as a spectator-observer, watching but not participating. For example, you can observe from the side of the room while another adult manages the classroom activities with the child. It is usually easier to observe as a spectator, so you might try this method first. Again, be careful not to call attention to yourself as you observe, otherwise the child might not act naturally.

6. Start by observing one child at a time

As you become more experienced in observing, you will probably find that you can observe more than one child at a time. It's best not to try to do this, however, until you are pretty sure you won't get confused, or miss or forget important information.

Watch for Patterns

Watching for **patterns** is an important part of observation. You may notice that a child sometimes forgets words, stumbles, or knocks things over. All preschool children do these things from time to time. What you want to know is whether the child often or always does these things. Carry a piece of paper and a pencil around with you and keep track for a few days. Be sure you are objective (factual) about your observations—try to keep your own feelings and reactions separate. In this way, you will be able to see the patterns that point to the particular skills with which the child needs help.

1. General observations

During activities that call for talking, such as during free play or story time, observe how the child speaks and the ways in which the child talks with adults and other children. Watch for patterns to appear. Does the child use speech you would expect to find in a much younger or older child? Does the child seek out other children, or does the child seem hesitant in approaching others?

In games, watch how the child uses his or her body, arms, legs, and hands. Note patterns of clumsiness: does the child stumble, fall, or trip? Is the child's balance poor? Does the child tire easily? Does the child know when to pause and rest? Is the child hesitant about trying new activities?

When playing with table activities such as blocks or puzzles, other problem patterns may emerge. Does the child knock things over when reaching for them? Are the child's eye-hand movements coordinated? Can the child grasp and hold small objects such as pencils or crayons? Can the child cut with scissors? Can the child match and sort out pictures, objects, shapes? Are such activities too difficult, or are they unfamiliar to the child?

In quiet activities, does the child listen and watch, or does he or she try to get up and move around?

Watching for patterns is very important, but they are sometimes hard to see. Going back over all the notes you have made can help you discover patterns you didn't see before. You should review your notes on a regular basis. The information in them can help you identify new skill areas and behavior you might want to find out more about, either by observing or by other assessment methods.

2. Specific observations

When you consult with the child's doctor or physical or occupational therapist, you will find your meetings most useful if you can ask specific questions about daily activities. Your observations can help you pinpoint those questions.

The specialists may have many specific questions for you, also. These questions have to do with observable behavior in orthopedically handicapped children, such as positions of the body, some of which can cause harm to the child if not corrected. The physical therapist will want to know how often this behavior occurs, and can give you suggestions for altering this behavior. The checklist below indicates behavior that you should discuss with parents and specialists, since it may indicate a problem.

Usually, orthopedically handicapped children should be discouraged from sitting in the "W" position.

Check any of the following questions that apply.

In cases of cerebral palsy:

- ☐ 1. Do the child's knees tighten together when walking?
- ☐ 2. Does the child sit in a "w" position when on the floor?
- ☐ 3. Does the child drool a lot, especially when involved in an activity?
- ☐ 4. Does the child have trouble sitting up straight in a chair?
- ☐ 5. Does the child sometimes sit for long periods of time with his or her arm and head hanging to one side?
- ☐ 6. Does the child have trouble closing his or her mouth? Even when eating?
- ☐ 7. Does the child have trouble picking up, holding, or using a crayon or marker?
- ☐ 8. Does the child's head droop when he or she is supposed to be looking at a person or object?
- ☐ 9. Does the child walk or run on his or her toes?
- ☐ 10. Does the child avoid using one side of his or her body?
- ☐ 11. Does the child seem sensitive to being touched?
- ☐ 12. Does the child hold one arm tightly against his or her side when walking or standing?
- ☐ 13. Does the child often hold one or both hands tightly closed in a fist?
- ☐ 14. Does the child "bunny hop" (move both legs together) when crawling on the floor?

In cases of amputation or limb loss:

- ☐ 1. Does the child feel pain where an arm or leg was amputated?
- ☐ 2. Does the prosthetic device seem not to fit and operate properly?

In cases of muscular dystrophy:

- ☐ 1. Does the child limp, trip, or fall easily, especially when tired?
- ☐ 2. Does the child have difficulty rising from a chair or from the floor?

In cases of spinal cord damage:

- ☐ 1. Does the child seem not to feel the difference between hot and cold objects?
- ☐ 2. Does the child have sores or injuries about which he or she almost never complains?

In cases of arthritis:

- ☐ Does the child develop a sudden fever or rash, or a sudden swelling or tenderness in one or more joints?

When a child wears braces:

- ☐ Do the braces seem not to fit the child? In other words, do knee or ankle locks seem not to permit him or her to bend the joints easily? Around the middle of the day, you might look for redness or pressure spots on the arm or leg with the brace.

In all cases:

- ☐ Does the child have any difficulty moving his or her arms and legs in their full normal range of motion (in, out; up, down; around)?

Use the Information

Once you have observed a child systematically, written down your observations, and reviewed your notes, you should be able to identify areas of strength and weakness in the child's skills. This information can be used to develop objectives for the child, and to select activities and teaching techniques that meet the child's needs. This information is also useful in discussions with other teachers, parents, and specialists.

Step 2:

Set Objectives

An important part of the planning process is developing individual objectives that will lead to the maximum growth of each child. The objectives need to be realistic in terms of the purpose of Head Start and the program's staff and time resources. Most important, the objectives should be developmental objectives. Think of ways you can reduce any limitations imposed by the orthopedic handicap so that the child can reach these goals.

For example, it may not be reasonable to expect Bruce to zip up his zipper, but it might be feasible to teach him to use a Velcro type of fly. If Yea Ling might never be able to gain good control over her speech, it might be sensible to teach her alternate forms of communication (such as gestures, Bliss symbols, sign language).

Since the effects of orthopedic handicaps vary greatly from child to child, it is asking quite a bit for an untrained person to figure out whether certain objectives are realistic. An occupational or physical therapist is needed to help you to identify what is reasonable in light of the child's abilities.

Here are some guidelines for setting objectives.

1. Be Specific

When you have gotten together your observations, you will find some areas of strength and some weaknesses. This information is not particularly useful until it is translated into what the child *needs*. State objectives in terms of skills and behaviors that need to be learned and that you can observe. Set a target date for the achievement of each objective.

If Molly's need or weakness is difficulty holding a pencil, your objective for her is to learn to hold a pencil. To make the objective more specific and easier to observe, state it as follows: "In two months, Molly will be able to grasp an oversized pencil with one hand."

Sometimes a child may need to learn certain gestures in order to communicate.

78 **2. Develop Both Long- and Short-Term Objectives**

If Tom has difficulty with self-help skills, a long-term objective for him might be: "Tom will learn the self-help skill of locking and unlocking his braces." Short-term objectives that will help Tom meet the long-term one are: "In one month, Tom will be able to ask for help in unlocking his braces and in sitting down. In two months, Tom will be able to sit down without assistance, once the braces are unlocked. In eight months, Tom will be able to unlock his braces and sit without any help."

3. Develop New Objectives as Needed

Objectives will have to be changed if your observations show that there is a need for it. If Tom surprises you and learns to sit down without assistance in only one month instead of two, or if it takes him more than two months to learn to do so, you will want to develop new objectives to fit his abilities and needs.

Step 3:

Select the Program, Activities, and Techniques

If your Head Start program has several program options, you need to consider which one can best meet the objectives you have set for each child. For some orthopedically handicapped children, a full-day, center-based program is best. For others, a part-day program combined with a home-based program or a special class might be best. The particular combination of Head Start and other services that is best and the amount of time spent in each varies from child to child. It is a good idea, however, to start off by *expecting* the child to participate in *all* standard Head Start activities along with the non-handicapped children. The child's program can then be revised, if and when it becomes necessary.

To make it possible for orthopedically handicapped children to participate in all your usual classroom activities, think about ways to adapt the activities, and prepare them differently. You can use a variety of teaching techniques to make sure the child gets what he or she needs. For examples, look at the "Activities" in this chapter.

Develop Plans with Parents and Specialists

Parents

Sometimes it is hard for parents to recognize changes in their child from day to day. In the classroom you have the opportunity to see a child for long stretches of time, to observe the child performing a wide variety of activities, and to compare each child with many other children. For these reasons, you can observe a child's daily progress and set realistic objectives based on your observations. On the other hand, parents know a great deal about their child that no one else can learn simply by being the child's teacher. Moreover, for education to be effective, the parents' and teacher's goals for the child need to be consistent so that all are working, in their different roles, toward the same end. Develop your plans with parents. Share with parents the progress their child is making in your classroom and ask them to share with you the child's accomplishments at home. As you work together with parents, you might invite them to observe the program and to assist in class activities.

Specialists

Specialists typically see a child for short periods of time doing a limited number of tasks, and interacting only with themselves and the parents. Sharing your observations with specialists can provide them with valuable information on the child's activity in a more normal setting. In turn, the specialists can help you understand what limits the handicap imposes on the child's activities, and may be able to help you develop objectives that are based on the child's needs and abilities.

Continue to Observe, Reassess, and Make Adjustments

While a formal assessment of each child's development and progress may occur only once a year, you should aim for more informal evaluations much more often. (Remember how quickly children change at this age, especially in a stimulating classroom!) As you observe and record regularly a handicapped child's responses in major skill areas, your understanding of that child and the effects of the orthopedic handicap will grow. Keep in mind the objectives toward which the child is moving, and how much progress has been made.

Refer to your past observations, and look for patterns in skill areas. If, for example, there is a pattern of poor eye-hand coordination, consider whether you have seen some improvement in this area. Try to figure out which activities the child has enjoyed most and which ones seem to have caused the most improvement. Try to include more of these kinds of activities in the future.

Continuity Between Head Start and the Public Schools

As a result of the Education for All Handicapped Children Act, public schools will increasingly be providing the benefits of mainstream classrooms and special services to handicapped children. After being in a mainstream Head Start classroom and receiving special services, children with orthopedic handicaps will need to have these advantages continue. There are several things a handicap or social service coordinator and you can do to contribute to the continuity of the education that a handicapped child in your program has been receiving.

- **Some Head Start programs have developed formal relationships with the public schools in their areas, to assist in the transition between preschool and elementary school. If your program has no formal relationships with the public schools, you might explore the possibility of establishing them. Your program director or handicap coordinator will know where to go for suggestions on how to achieve this.**
- **Developmental continuity is made easier if community providers of special services to Head Start children continue to provide them to children as needed when they go on to public school. Before a child leaves Head Start, you can discuss the child's future plans with the specialists who have been working with him or her.**
- **Parent participation in the services their child has been getting in Head Start is a valuable foundation to build on. Encourage parents to continue their involvement and to make sure that their child receives needed services in elementary school.**
- **Finally, you can keep in touch with the child and his or her family after the child leaves your classroom. A telephone call or a visit to find out how things are going will be appreciated by the parents. If the child is having problems, your suggestions on how to deal with them would be welcome.**

The Physical Setting and Classroom Facilities

The mainstreaming of many orthopedically handicapped children requires special physical changes in the classroom. You will need to learn about any special equipment the child uses, and you will have to adapt some of the equipment and materials you now have. This usually does not mean you have to purchase expensive or exotic new equipment. But it will take time, effort, and some ingenuity on your part to make the necessary changes.

For instance, you may already have very nice worktables, but find they are too low for the arms of a wheelchair to slide under. You could solve this problem by nailing blocks under each leg of one table, to raise it to the proper height. If a child cannot get a firm grasp on narrow implements like crayons or paint brushes, there are a couple of solutions. You can make them fatter by wrapping them in tape. Or you can cut a slit in a small rubber ball and slide the crayon or paintbrush through. The rubber ball is easy for the child to grasp.

While these modifications and adaptations take extra time and effort, they will allow a handicapped child to use the classroom with a minimum of help. It isn't necessary to provide a child with the perfect environment. Fancy equipment and specialized material are not the heart of learning. It is the children and the staff that really make a preschool program.

Start Simple

Keep your room arrangement as simple and uncluttered as possible, especially at the beginning of the year. As the children get used to it and learn to handle a more complex environment, you can gradually increase the amount of materials and number of activity areas. The use of well-defined and consistent space patterns will avoid confusion and help the children become familiar with the classroom organization. The space in which each activity occurs should be clearly marked.

For example, you might want to try masking tape on the floor to indicate the big block area, the housekeeping corner, and other areas. Other space cues, such as cabinets and temporary partitions, can be moved around as needed. Mark storage areas clearly. Make sure children know where they are, what belongs in them, and can get at them. Be consistent about where materials are kept and where activities take place.

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Clear Traffic Patterns

Make sure that your room is free of obstructions, and that there is enough room between furniture groupings to avoid collisions. The traffic patterns between activity areas should be easy to recognize. Making a map of your floor plan before the beginning of the year may help you to recognize and correct traffic problems before they happen. Don't overlap traffic routes and activity areas — this will disrupt the children who are involved in the activities.

A child on crutches, canes, or a walker can easily be knocked over. The other children need to be made aware of how the child moves and why the equipment is used. You might fit a large rag doll with outgrown braces to show children how the braces work. A talk about not pushing may be helpful. Avoid the use of loose area rugs, which might interfere with crutches or wheelchairs. And make sure the floor is dry, since crutches can easily slip on wet surfaces.

Children often like to be included in decisions about the organization of their classroom. For instance, if you need wider aisles between furniture to allow a wheelchair to pass through, you might sit down with the class to work out a solution. Have the children help in moving furniture or placing tape. When children are part of the process it helps them understand and accept classroom changes.

Rearrangement

A child with a walker or wheelchair needs more space than the average child. At a work table, for example, you may wish to reserve an outside corner location so that a child with special needs can maneuver into place more easily, and have space for extra equipment. Plan ahead for the child's safety and allow extra time for him or her to move to various areas during the day.

In considering arrangement or rearrangement of space, you may find it helpful to draw a floor plan to scale on a piece of paper. Use pieces of colored paper cut to scale to represent the moveable equipment in the classroom, such as tables, cupboards, and chairs. You can then move the pieces around on the floor plan to determine the best arrangement. Consider safety and fire regulations as you do this.

Noise Level

Avoid placing noisy activities next to quiet activities. Noise and movement distract some children from quieter tasks. Noise interrupts the rest breaks or quiet work periods that some orthopedically handicapped children need. Some children with cerebral palsy will go into extensor spasm (uncontrollable straightening of the arms and turning of the head) when startled by a loud or unexpected noise. Some children who have shunts seem to be more sensitive to loud noise and experience real discomfort from a very noisy room or a fire alarm. Listening and speaking are a lot easier for everyone when it's relatively quiet. Be sure there are quiet places in the room, perhaps sectioned off.

The Room Is for Kids

Since children are smaller and lower to the ground than you are, displays should be at their eye level, and equipment should be within their reach and suited to their size. Eye level is different for children in wheelchairs, and the reaching ability of children using wheelchairs, crutches, or other devices may be limited. Adapt as many storage areas, displays, and materials as you reasonably can, so that an orthopedically handicapped child can get to them and use them on his or her own.

Personal Places

We all need to get away from it all every once in a while, and children are no exception. There should be a quiet place available where children keep their personal belongings. These are often large enough to be used as nice "escape hatches." You can even rig up a curtain that can be drawn across the area, if the child would like this. Try to arrange your book area so that it is comfortable, and has private nooks and crannies. Make sure the nooks and crannies are also available to the wheelchair-bound child. If the child cannot move his or her own wheelchair, or if the child's speech is difficult to understand, make it a point to inquire occasionally if he or she would like to spend some time alone. Some may not want to do so, since so much time at home is spent without the company of other children.

Those children with orthopedic handicaps who have difficulty controlling their bladders and/or bowels may experience some embarrassment about the use of diapers or collection bags. A private place should be set aside for their toileting needs, to protect their feelings.

General Teaching Guidelines

There are many good ways to teach. Because of your personality, temperament, and values, you have developed your own individual teaching style, which is reflected in the activities you choose, and the ways you interact with children. Good teaching techniques are often the same for the education of any child, whether handicapped or non-handicapped. So it is best not to try to change your natural teaching style for a handicapped child. It will only serve to make both you and the child uncomfortable.

With orthopedically handicapped children, you will want to apply your teaching skills consciously, using those skills that most effectively serve the needs of the child. You do much the same for every child. But since children with orthopedic handicaps have problems that seriously interfere with overall performance, they require extra consideration. Following are some basic principles that you may already know and use with all children. They are particularly useful in working with children who have handicaps, including orthopedic handicaps.

1. Starting Out

Some adults are nervous and worried about working with a handicapped child for the first time. This is a typical reaction when they don't know the child very well yet (if at all). As a result adults sometimes start out thinking of the child as an **"orthopedically handicapped** child." As they spend time with the child, watch the child, play with the child, and hug the child, they usually find that they have begun to think of the child as a "**child** with an orthopedic handicap," and soon they think of him or her as a "**child,**" plain and simple.

Your first efforts working with the child may not all be successful — this is to be expected. You may feel frustrated and guilty. If something goes wrong (as things do from time to time), figure out what happened, and keep it in mind for the next time.

Don't expect miracles. No one is asking you to cure a child, or to make the child into the fastest puzzle-doer in the class, or into the best runner or climber. Sometimes, even with the very best help from you, the staff, and specialists, a child just doesn't make as much progress as hoped.

2. Classroom Personnel

Aides and volunteers play a key role in all Head Start programs, and their assistance should be included in classroom planning for children with special needs.

Aides

Your aide or assistant helps you teach activities and work with individual children. This help is especially valuable if you have a handicapped child in your class who needs special attention and assistance. Aides should be included in developing educational objectives for the child and in ongoing planning. Both you and the aide should agree on what the aide should do, and *why*, to help the child learn and play with other children.

It is not a good idea to have the child work constantly with only one adult. This isolates the child from other children, defeating the purpose of mainstreaming. Some children, however, will need the security of an attachment to only one adult in the classroom before they are able to work with several adults. For that child, you may want to assign an aide to work with that child for a while.

On the other hand, other problems can be created when a child has too many caregivers who come and go. This makes it hard for the child to form emotional attachments. Children learn better with the reassuring presence of a few people they know and care about.

Care for the child should therefore be shared among several adults and individual attention should be limited to what the child needs so that he or she is not separated from the group too often.

Volunteers

Volunteers can be helpful in working with handicapped children even though their work hours are probably shorter and less predictable than those of aides. They, too, need explanations and directions from you about what they are expected to do.

Head Start has always had the assistance of parents as volunteers. This should be encouraged. High school and college students are also ideal volunteers. Young people who are learning about children in school are often interested in working with them. Other sources of volunteers are senior citizen clubs or apartment complexes for the elderly. Many elderly people, especially those whose grandchildren don't live nearby, would be pleased to help with young children—and they certainly are experienced! Other excellent sources of volunteers are organizations and agencies in your community that work with handicapped children (such as Easter Seal, United Cerebral Palsy Associations, children's hospitals, rehabilitation centers).

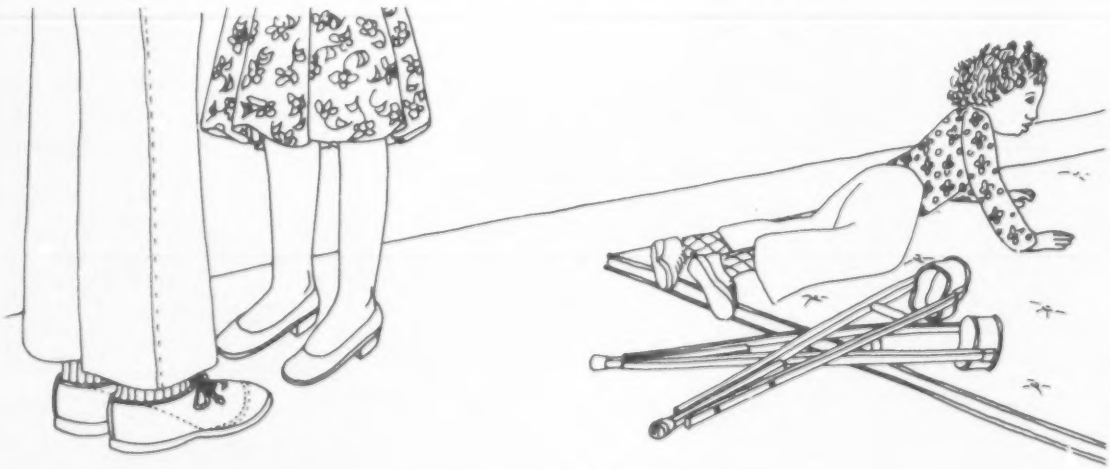
See to it that everyone who works with a handicapped child in your class gets along well with him or her. We all work better when we enjoy what we are doing.

3. Setting Limits

Some limits must be put on children to protect their physical safety. Safety limits are usually clear-cut: for example, "No running in the classroom," and "Look both ways before crossing the street."

Some rules for orthopedically handicapped children might be: "Keep your crutches close to you" or "Keep chairs and canes out of pathways." The other children in the class might need to be reminded that since a child using crutches or a walker can lose his or her balance easily, they must be careful not to bump into the child. A slight push of a wheelchair could send a child sailing across the room and crashing into something, possibly causing injury and fear. Remind children of this, too! And since wet tile floors can be very slippery, especially for a child using crutches or canes, you may want to set a rule about mopping up spills immediately.

State safety limits simply and frequently. Enforce them consistently, so that children will learn that they must be followed.



A safety rule might be: Keep crutches close to you, so that others won't trip over them.

86 Children also need limits to help them control their behavior. Unlike safety limits, behavioral limits require you to make some judgments about what is appropriate and what is not. Each of us has a range of child behavior that we accept or can tolerate in our classrooms. (Some teachers don't mind a lot of noise or a messy paint area, while others can't stand this.)

Whatever behavioral limits you set, be consistent in enforcing them. If the limits keep changing, the children will never know what you expect, and will not learn what you are trying to teach. Praise children for their efforts, and try to ignore borderline but tolerable behavior. Let the children know that you accept and respect them, whatever the quality of their performance. As a result, the children will not feel personally threatened by failure. They will approach learning without fear.

Before setting a behavioral limit, look carefully at the behavior you are concerned with, and ask yourself the following questions.

How Does It Affect the Other Children?

Does the behavior disrupt the learning of the other children? If the behavior does not disturb the other children, then perhaps it should be something you may want to learn to live with.

For instance, some children with cerebral palsy may make strange sounds. If a child has little control over this and/or is just learning to talk, this speech should not be discouraged, especially if it does not interfere with the other children's learning.

Can the Child Help It?

Does the child have control over the behavior? Certain behavior may not be within the child's control. For example, you may find the drooling of a child with cerebral palsy difficult to tolerate. You can teach the child to use a tissue, but you cannot change this behavior. You must adapt to the child's behavior. Concentrating on the child's needs rather than his or her behavior may help *you* to change.

Is a Change Justified?

Do you have a good reason for wanting to change the child's behavior? What is your educational rationale for wanting to alter the behavior? For instance, Belinda is a child who is very eager to participate in outdoor activities. This requires a good deal of modification, because she is confined to a wheelchair. You may find yourself discouraging Belinda from participating, rather than making the needed modifications to include her. This may be necessary at times. However, make sure the behavior change is good for the child, not just more convenient.

Can You Think of Substitute Behavior?

What behavior do you want the child to substitute for the undesirable behavior? One good way to help children change behavior is to teach them a good substitute. For instance, Victor is a child with spastic muscles. The harder he tries, the tenser his muscles become, and his performance actually worsens. As a substitute, you may want to encourage Victor to try new tasks for only short periods of time. Or, you might have him alternate between easy and hard tasks, such as scribbling continuous circles on one paper and following a pattern of straight lines on another. Or you may want to encourage Victor to stop an activity when he becomes tense. After a minute or two of relaxing, he can return to the activity.

4. Pacing

Plan your day so that the activities are varied. Alternate between active and quiet activities, between organized projects and free play. When you teach new skills, present them first in familiar contexts, along with some skills the child already has. This lessens a child's uncertainty and frustration.

A child with an orthopedic handicap may be especially sensitive to the pace of the day. Some orthopedically handicapped children tire easily, and may need extra quiet times during the day. This doesn't necessarily mean a nap—often ten minutes alone in the book corner is enough. Also, children's attention span may need training and strengthening if they aren't used to preschool. If a child's attention span is short, make the activities short, too. You can lengthen them as the child learns to pay attention for longer stretches of time. There should be extra time available for a child who needs more than one turn to do something. Providing time for that extra turn or two can mean the difference between success and failure.

Children with orthopedic handicaps may need to change positions throughout the day. This is especially true of wheelchair-bound children. Get the help of an occupational or physical therapist in planning for appropriate changes throughout the day.

5. Grouping

At home a child with an orthopedic handicap is often isolated from other children. One of the benefits of mainstreaming is that it offers this child the opportunity to play with other children and to learn from them. You can plan and organize your learning situations so that this interaction, called "peer modeling," can occur. In areas where the handicapped child has had little experience, another child (a peer) who has the skill can act as a model. Likewise, in areas where a child with a handicap excels, pair him or her with a less skilled child.

No child, handicapped or nonhandicapped, is good at everything or has trouble with everything. All children should have the opportunity to give help to their classmates and to receive help from them.

Try hard not to exclude an orthopedically handicapped child from any activity, especially large-group activities. Exclusion means isolation, and isolation means feeling different or bad. To include the child, give extra assistance or change the expectations for the child. For example, during a singing activity, have the child with little speech control tap the rhythm on a drum or chant a single syllable (la-la-la), in time to the music. In this way, the child is a full participant in the activity, is not interfering with the other children, and is also practicing needed skills.

Individualized teaching does not mean isolating a child. Rather, it involves modifying the activity so that all children can participate within the same learning situation.

6. Children Helping Children

We have already mentioned the benefits of using children as models for each other. This principle applies directly to having non-handicapped children assist you in mainstreaming special needs children. Your youngsters will probably be eager to serve as helpers. This experience has a bonus: it helps them to develop positive attitudes about handicapped people. In addition, their help will free some of your time for other responsibilities. Ways in which non-handicapped children can help in mainstreaming include:

- **introducing a new child to the physical setting of the classroom**
- **pushing the wheelchair of a paraplegic child**
- **helping a child to gather his or her materials for a cutting and pasting activity**
- **providing a child with opportunities to practice a newly learned skill**
- **assisting a poorly coordinated child during playground games**
- **alerting a child that a recess is about to begin, and helping him or her move out to the playground**
- **sitting close to an easily frightened child to provide support when the lights go out during a film-strip.**

Peer helpers *should* be used often. This includes using a handicapped child in areas where he or she excels. In this way, all the children will learn that they each have areas of strength and weakness. They will also learn that the need to receive help does not mean that they are failures, or are less worthy than those who offer help.

You may find that there is a non-handicapped child in your class who is unusually responsible and who enjoys being a big brother or big sister to a child with special needs. This is fine, but make sure that the helper doesn't do too much for the child. Helpers should also encourage the handicapped child to do things on his or her own.

7. Breaking Down Skills

Every skill is really composed of many sub-skills—there is no such thing as a one-step activity. Skills such as tying shoelaces, cutting a circle with scissors, doing a somersault, or learning to recognize letters of the alphabet consist of many sub-skills.

Some children can master a new skill very quickly with little help from you. These are children who already know the sub-skills and can use them in performing the new skill. Handicapped children, however, often have not had much practice with the necessary sub-skills, and need to be taught them before they can succeed at the overall activity.

For these children, you can break down the activity into sub-skills that can be learned at their current skill level. For example, if you want to teach Roberta to feed herself, check to see if she can pick up food or grasp a spoon. These are some of the sub-skills of eating and must be mastered first.

8. Sequencing Activities

In addition to sequencing skills within an activity, sequence a series of activities. Start with simple activities and gradually increase the level of difficulty as a child learns. Be sure to demonstrate to a child how the skills learned in one activity can be used in others.

9. Physical Contact and Guidance

Use physical contact to help orthopedically handicapped children, to ensure safety, to provide guidance, and to limit space.

Feel free to express your affectionate feelings with a pat or hug. You may feel awkward doing this at first, since braces, wheelchairs, and other equipment sometimes seem to get in the way. But a handicapped child needs that pat or hug as much—if not more—than other children.

10. Avoiding Over-Dependence

It is sometimes hard to be accurate and realistic about what handicapped children are capable of doing for themselves. It is all too easy to assume that they are more helpless than they really are. Seeing that they cannot do some things may make us think that they cannot do others.

Furthermore, some parents may have overprotected their handicapped child to make up for all the extra problems their child has to deal with. This means that some children may come to Head Start expecting that everything will be done for them, simply because this is what they are used to.

Overprotecting a child is a trap you don't have to get caught in. You have to ask yourself: "Is this really impossible for this child? Could the child do it alone with more time? Could the child do it with more help from me?" Think hard, and be honest. It is tempting to do things for a child because you can do them faster and better. But if you're always the one who pushes the wheelchair, puts on the coat, and opens doors, the child won't have a chance to try to learn to do these things. And isn't the child in your classroom so that he or she *can* learn to do them?

Being extra patient and giving extra encouragement to children who try to do things on their own will pay off many times in the future. You can help children think of themselves as able and competent. When they grow up, they will be in the habit of expecting as much from themselves as they are capable of.

11. Confidentiality

Making sure that confidential information stays confidential involves careful record-keeping and watching what you say.

Project Head Start requires programs to institute careful procedures, "including confidentiality of program records, to insure that no individual child or family is mislabeled or stigmatized with reference to a handicapping condition" (OCD Transmittal Notice N-30-333-1-30, "Head Start Services to Handicapped Children," February 28, 1973, page 6). The Head Start Performance Standards also spell out procedures to guarantee confidentiality of records:

- **Records must be stored in a locked place where unauthorized people can't see them.**
- **The Head Start director must determine which staff members can see which parts of the records and for which reasons.**
- **Parents must fill out written consent forms to give anyone outside of Head Start permission to see the records.**

These procedures are designed to make sure that all records on a handicapped child and his or her family are seen only by people who need to see them for legitimate educational or medical reasons.

Avoid copying down confidential information from the child's records. Limit the confidential information you do write down to what you need for working with the child.

You should not repeat confidential information about handicapped children or their parents, either to other parents or to staff members who are not working with the children. This is an invasion of the privacy to which handicapped children and their parents have a right.

If you need to share confidential information with another staff member to help him or her work better with the child, have your discussion in a private place and limit it to necessary information only.

Teachers have sometimes been embarrassed to find that their comments about a handicapped child's family have been repeated to the family. Parents of children with special needs can be sensitive about this issue, and understandably so. Be discreet about what you say—and to whom you say it.

Activities

Children who are orthopedically handicapped need experience and practice especially in fine and gross motor skills. They will also need practice in communication skills, self-care skills, social skills, and cognitive skills.

This section describes activities that can help children improve their performance in all skill areas. As you know, any activity can be used to teach many kinds of skills. Depending on how the activity is done, some skills will get more practice than others. For example, if you wish to use a puzzle activity to practice fine motor coordination, any simple puzzle will do. But if you also want to practice the skill of learning colors, you will need a puzzle with different colored pieces, so that you can tell the child, "Now, put the red piece in." Using your imagination, you can include practice in many other skills than the ones we have listed for each activity.

The goal of any activity should be to enable each child to participate, learn, and have fun. If there are orthopedically handicapped children in your program, you will need to remove as many of the physical and environmental barriers to their direct involvement as you can. To do this, you need to consider the child's **position** and **modifications of equipment or materials.**

Get the parents and physical or occupational therapists to help you determine how best to position a child and to assist in modifying equipment or materials. Parents have had experience solving similar problems with their child at home. Since some positions may even be harmful for a particular child, it is especially important to talk to physical or occupational therapists. They are trained in proper positioning and in adapting equipment. They can help you think about what positions a particular child might use in each activity area in your classroom, and what modifications the equipment might need.

Positioning

For orthopedically handicapped children to participate in activities and learn, they need to feel comfortable and well balanced. The position of a child in each activity is your initial concern, so that the child can get involved in the activity. Ask yourself some questions:

Given the physical strengths and weaknesses of each child, *where* should the activity occur?

In what *position* will each child have maximum freedom to see what she or he is doing and to move arms and legs?

How should each child stand? Freely? In a supported, stationary position?

How should each child sit? In a chair? Supported on the floor "Indian style" with the material in his or her lap? In a wheelchair at a table?

Should a child lie on one side? Lie on the floor with a bolster under the chest to free the arms and hands?

Whatever your decision, make sure that all children feel comfortable and well balanced. Otherwise, they will not be able to concentrate on the activity.

Modifications

Once you have decided what position is best for each child for a particular activity, you can determine what modifications will be necessary in the materials and equipment. For example, for water play activities, your classroom probably has a water table built so that the children can stand around it. A paraplegic child in your program, however, would probably have the most secure freedom of movement while seated in a wheelchair. You need to find out whether the child's wheelchair can fit under the table and whether the child can reach over the edge to play freely in the water. If the answer to either question is "no," you will need to think about how to modify the water container. One solution might be to place a plastic dishpan on a higher surface. Another might be to raise the water table's height by putting blocks under the table's legs.

You may come across situations in which the equipment cannot be modified adequately to fit the best positions for the child. Consider other possible positions for the child along with changes in the equipment, until you come up with the most satisfactory combination.

You will need to do this type of preparation before you include an orthopedically handicapped child in any activity. You will find that the process becomes easier as you get to know the child's needs and abilities. And the more practice you get in modifying activities and equipment, the more skilled at it you will become.

Water or Sand Play

Water or sand play can help orthopedically handicapped children improve their gross and fine motor skills. In terms of gross motor skills, this activity gives children practice in:

- **using two hands at the same time in a variety of positions, including crossing the midline of the body. (The midline is an imaginary line dividing the body from the middle of the forehead down through the trunk.)**
- **using one hand to assist the other.**

In terms of fine motor skills (in one or both hands), this activity gives children practice in:

- **opening and closing fingers**
- **grasping and holding without moving**
- **grasping and holding while in motion**
- **releasing**
- **squeezing**
- **pouring**
- **shifting an object from one hand to another.**

The ideas described here also apply to sand play, if spoons and shovels are substituted for containers that squeeze and/or have small openings.

Preparation

Decide on the best position for each child, and adapt equipment for his or her use. You may have to raise the water table on blocks to make it high enough for a wheelchair, or you may want to use shallow dishpans on table or tray tops, or on the floor.

Have mops and sponges (or a brush and dustpan for the sand table) handy, so that children can clean up spills as they occur.

Conducting the Activity

1. Provide a variety of water toys, bottles, tubes, funnels. Think about which equipment can help develop fine muscle coordination and which can help with cognitive learning of physical principles. Try to have both types of equipment available.
2. This activity requires little supervision. You may want, however, to point out something interesting, like siphoning or the rate at which sand flows through funnels of different sizes. Suggest ideas such as building tunnels in the sand or washing dolls at the water table.
3. Remind children to clean up spills as they occur.

Tips

Children who have problems grasping should be able to choose from an assortment of plastic containers of many different sizes and widths. Empty, well-washed shampoo, detergent, and cosmetic bottles from home can fill this need. Also include squeezable sponges for the children to play with.

For children who have problems holding onto things, use string to attach the cups, funnels, and other containers to the side of the water basin or table. This makes it easier for them to retrieve dropped containers.

For children who need to practice different hand movements, provide some containers with handles, others without, some with spouts, some that squeeze (such as old plastic dishwashing liquid bottles with their tops on), some with small openings, others with large openings. Also include sponges of different sizes, and even small bits of sponge.

Make sure that the water is warm. Cold water may increase muscle control problems in children with cerebral palsy. Warm water can help to ease the stiff, swollen joints of children with arthritis, while providing a delightful learning experience. You might encourage children with arthritis to join in water play early in the morning, to help ease joints that have become stiff during sleep the night before.

Water play gives children a rich learning experience without specifying a "right way" to use the materials. But some children hesitate to join in water play for fear of making a mistake and causing a mess. You can encourage this freedom to learn, particularly in children who have uncontrolled muscle movements, by taking some measures that will cut back on the messes. For example, fill the basin, water table, or dishpan only halfway. Cover all children adequately with plastic aprons. Roll sleeves up as high as possible, and put sponges within the children's reach to give them a chance to catch spills. These same sponges may become an exciting part of the water play itself.

To vary the activity, add detergent or soap flakes to water. This gives the water a slippery feel, and lets children experiment with making bubbles. Bubbles can be made by blowing through plastic straws.

6

Rolling a Ball

Rolling a ball builds a number of gross motor skills:

- **sitting upright (supported or unsupported)**
- **using two hands together**
- **moving arms toward and away from the body**
- **eye-hand coordination.**

Preparation

Children with poor sitting balance need to have enough physical support so that they won't be concerned or distracted from the task. Individual children can sit directly in front of and between an adult's separated legs. The adult's body and legs then serve as support for the child.

If children have difficulty grasping and/or releasing a small ball, using a larger ball (such as a beach ball) will make it possible for them to hold the ball and let it go with their hands partially opened. Although children whose hands are usually clenched can grasp a very small ball, it may be almost impossible for them to release it.

Set up a target that is large enough for children to see without moving their heads. A basket turned on its side could serve this purpose. Start out with the target no more than two or three feet from a child.

The floor should be hard enough so that the ball can roll easily. You might set up a slight incline so that the ball will be sure to move forward when released. As children gain strength and control, the surface will matter less.

Conducting the Activity

1. You or another adult should sit on the floor with a child seated directly between your outspread legs. Gently place two hands on the ball and roll it toward a target or another person, while explaining what is happening: "Look at the ball. Now I put my two hands on it. I will push it as I let go. See, there it goes. Oh, the ball hit the target!"
2. Demonstrate the motion several times. Make sure that the child is sitting upright with support from your body, including side support from your legs. Then place the child's hands on each side of the ball. Keep your hands over the child's to prevent them from slipping off the ball. Then instruct the child, "Now, you are going to roll the ball to the target. Ready? Push, when I count to three. One, two, three. Push the ball with both hands and let go." Move your arms and hands forward and withdraw them so that the ball moves forward. "Watch the ball. See it go." Keep the child's attention on the ball's movement.
3. Be sure to hold your hands over the children's if they cannot control their movements. If they are likely to become stiff and turn their heads when they get excited, you can control their head movements with your shoulders and upper arms. Speak quietly, in a matter-of-fact manner, rather than cheering as you might with children with normal reflex patterns. (The loud cheering and excited voice may cause children with cerebral palsy to become overexcited and stiff.)
4. Try the activity with a variety of targets that children enjoy. Gradually move the target farther away. Tell the children exactly what they (and you) are doing as the ball is touched, moved, and

released. Describing what the children are doing as it is being done calls attention to the individual steps in the motor process.

Tips

Rolling a ball down a gradual slope is pleasant for children, since they can be sure the ball will move as soon as it is released. Putting guides (pieces of wood, or blocks) on the sides of the route toward the target helps to assure success in hitting the target.

The activity can include other children as well. They can receive the ball, then slowly roll it back so that it can be "caught" (trapped) between the legs of an orthopedically handicapped child. Catching the ball in this way could be a handicapped child's first step in reciprocal play.

A similar rolling activity can be played on a table or wheelchair tray, if children are well positioned and can move their arms to swat the ball down a lane (between large blocks or other upright guards) to a target. In such instances, however, the ball should be stopped when it is sent back to the starting position. If it tends to roll away too quickly, someone should stand or sit by each child to stop and set up the ball each time.

Play Dough

Play dough activities can help children improve their gross and fine motor skills. In terms of gross motor skills, working with play dough gives children practice in:

- **using two hands together in a variety of positions (including crossing the midline), and in a variety of movements**
- **using one hand to assist the other.**

In terms of fine motor skills (in one or both hands), this activity provides practice in:

- **poking**
- **pinching**
- **pressing**
- **grasping**
- **squeezing**
- **holding**
- **pulling**
- **rolling.**

Preparation

First determine what position will allow each child's hand and arm muscles greatest freedom of movement. Next, consider whether any of the materials should be modified for individual children.

Conducting the Activity

1. If children are unable to do the activity, try giving them smaller pieces or larger pieces of dough or knead the dough in your hands ahead of time to soften it. Check the surface on which the children are working. Is it firm enough so that they can press down easily? Is the surface "slippery" enough to allow the children to pick up the pieces that have been pressed down?

2. Children whose muscles or joints are stiff (arthritis) or who have too many uncontrolled movements (cerebral palsy) may need help getting started in their play activities. You can demonstrate the kinds of movements that they might want to try. They can put their hands over yours to feel a particular motion. And you can guide their hands to control a movement that gives them problems.

Tips

If an arthritic child's hands are too stiff to enjoy the play dough, you might want to encourage the child to soak them in some warm water before beginning. You can also make the clay more pliable by adding water to it.

If a child with cerebral palsy has one hand that is more affected than the other, encourage the child to use it to assist the other hand (for example, as a surface against which the "dough" is pressed, or to hold the clump of dough while using the other hand to pull off pieces).

If it is difficult for a child to use both hands together at the midline of the body, it is all right *sometimes* for the child to use just one hand. However, using both hands together is important developmentally for children, and should be encouraged as much as possible.

If an athetoid child has difficulty using his or her hands, try having the child work with the play dough closer to the body, or farther away, where the arms can be relatively straight. Sometimes giving this child a stiffer, more resistant dough increases his or her ability to manipulate it.

Cooking

Cooking activities provide practice with gross and fine motor skills, because of the movements involved with cooking equipment. In terms of cognitive skills, these activities build on children's understanding of:

- **cause-effect relationships**
- **sensory stimulation (seeing, touching, tasting, smelling)**
- **measuring.**

In terms of social skills, cooking activities can teach children to:

- **have good work habits**
- **take turns**
- **be cooperative.**

Preparation

If possible, include children in a shopping trip to the grocery store for the ingredients to be used in the cooking activity. Before you go with the group, find the most convenient route and store (for example, the sidewalk with curb-cuts at street crossings, the store with doors and aisles wide enough for a wheelchair or for someone with crutches, the store where you can look at, touch, and discuss the products).

Have the materials ready for cooking.

Prepare the children for the cooking activities by having them manipulate play dough and/or clay (rolling it with a rolling pin, cutting it with a spatula or dull knife, using cookie cutters) and experiment with soapy water (using egg beaters and spoons).

Conducting the Activity

1. Let children prepare real foods for eating at snack time. They can all experience, at different levels, the actual preparation of the food being cooked (spreading soft butter, peanut butter, or mayonnaise on bread; making instant pudding or gelatin; peeling and slicing vegetables and fruits). Roasting chestnuts and popping corn are especially good activities, since all children can participate.
2. Be sure to describe what is happening both before and while it occurs:

   "Now we must get the pan and fill it with water. When the knob is turned on, the stove becomes hot (or the gas flame appears). Next, the pan goes on the stove so that the water will get hot and boil. When you see it bubble (jump) or if you see steam (like smoke), let me know."

   Broken down in this way, the activity allows even the most severely disabled child to assume responsibility and be a part of the group.

3. Cleaning up should be part of the activity. All children should help in some way with the cleanup.

Tips

Do not hesitate to help orthopedically handicapped children hold and use kitchen utensils. Give the minimum amount of physical support needed.

If children have difficulty in sitting and in controlling hand movement, they might lie on their bellies over a bolster or wedge, so that their arms and hands fall freely before them. Place the bowl in which the food will be stirred directly in front of them on the floor. Make sure that the bowl is securely anchored (by the hands of another person, by its placement in an immovable container, or by the use of suction cups).

Provide opportunities for children to hold a bottle as fluid is poured from it into cups, a bowl, or a pan. Let them put their hands in and feel the flowing liquids. After several such experiences, support children's hands and arms as they hold and move the container. To help children control the activity, use light plastic containers that are only partially filled. If a child has artificial hands, encourage him or her to grasp the handle with one hook and support the container with the other. Give as little physical help as you can.

A standing position is usually more convenient for the movements involved in food preparation. Children with braces can be given added support while standing by attaching a "seat belt" to the table and then fastening it around the child's waist.

If gelatin is made in a large cake pan and allowed to stiffen, a child with little strength can be successful in cutting it into squares using a warm, dull knife or spatula.

Music

Music activities promote social, communication, and gross motor skills in children. In terms of social skills, music activities allow children to:

- **participate in a group experience**
- **share ideas and feelings through words and/or actions.**

In terms of communication skills, music activities help children learn to:

- **listen**
- **discriminate sounds.**

In terms of gross motor skills, music activities teach children:

- **rhythm**
- **body movement.**

Some of the ideas given here are helpful for any group activity in which children are sitting on the floor.

Preparation

For an activity like singing, the major concern is where and how orthopedically handicapped children will sit in the group. A child's doctor or physical therapist may inform you that the child must stay in a wheelchair. In other cases, however, you will have to think of ways in which children can either sit or lie on their bellies in a supported, balanced position. Consult with a physical or occupational therapist to find the best positions for an individual child.

Children who are not fully supported may worry so much about their balance that singing is very difficult for them. If a child is most comfortable lying on the floor, slip a bolster under the child's armpits and across the chest to give support and free the arms, hands, and head for movement.

If possible, however, have children sit in a well-balanced, supported position. Since the other children will be sitting, this will help them to feel more like a part of the group. If aides or volunteers are free, perhaps the best seating arrangement would be for the adults to sit Indian style creating a well with the legs in which the children can sit. For a child with uncontrolled muscle movements, cross the child's legs Indian style within an adult's, and have the child lean slightly forward. The adult can then gently place his or her legs over a cerebral palsied child's legs to inhibit muscle movements. If a child can't support him- or herself on the floor, you can use a three-cornered chair or a regular chair with the legs removed. This provides back support and also gets the child down to the other children's level.

Tips

When using musical instruments, you might try the following suggestions:

- If a child cannot hold a string of bells, sew some bells to a ribbon and tie them onto the child's wrist.
- If a child cannot hit a drum with a mallet, have the child tap it with his or her hand or elbow.
- If a child cannot hold a drum and tap it at the same time, tape the wooden part of the drum to the floor.
- Suspend a triangle or gong from a stand if a child cannot hold it and tap it at the same time.

When doing singing activities, try to:

- include songs that use the children's names, body parts, clothes they are wearing, colors they are wearing, favorite toys. This helps everyone feel important and part of the group, and teaches new words.
- include some songs with repetitive sounds (for example, "la-la-la") so that children who have difficulty pronouncing or remembering words will be able to sing along.
- include quiet songs and listening songs. This keeps everyone calm, and is helpful to children with cerebral palsy, who might get overexcited trying to use so many muscles singing and moving.
- include songs that have finger motions (for example, "Itzy Bitzy Spider") so that the children have a chance to move small muscles and use their hands together to make movements.

If body movement is called for during music time, consider the following solutions:

- If a child can walk but does so more slowly than others, perhaps he or she can walk in a smaller circle within a larger circle of other children.
- If a child cannot walk, perhaps another child or adult could push him or her in a wheelchair.
- If walking or being pushed aren't appropriate, perhaps a child who can't move about could sometimes be the conductor, leading the band and pointing with a "baton" or pointer to where the children should march. Or perhaps the child could sit and play an instrument in the center of the circle, while others march around him or her.

Collage

Collage activities build on children's motor skills and sensory awareness. In terms of motor skills, collage provides practice in:

- **using one hand to hold an object and the other to put on glue or paste**
- **grasping and releasing**
- **tearing (paper, cloth, or other material)**
- **spreading, dipping, squeezing (paste and glue)**
- **placing and patting**
- **eye-hand coordination**
- **using two hands to tear paper.**

In terms of sensory awareness, collage allows children to experience:

- **colors**
- **textures**
- **sizes**
- **shapes**
- **thicknesses.**

Preparation

Collect the following materials:

- paste, glue, or flour and water
- 1" masking tape
- newspaper, paper, paper plates, foam meat trays, egg cartons, on which to glue collage materials
- collage items such as scrap paper, magazine pictures, cloth, yarn, foam bits, wood pieces, beans, macaroni—almost anything that is small, lightweight, and easy to glue down.

This activity can serve as an excellent independent task for an orthopedically handicapped child who is properly positioned and supported. If the child is placed over a wedge or bolster with one hand free, attach the paper to a smooth surface on the floor within easy reach of the child.

For the child with asymmetrical tonic neck reflex (ATNR), it may be helpful to provide something to hold onto with the extended hand. For example, the child can gain support and control by clenching an upright support anchored at arm's length.

For a child with involuntary movements, uncertain balance, or abnormal startle reflexes, tape the paper to the table with masking tape on all four sides. This will prevent accidental tearing or movement of the paper as the child works on it. You could also put the paper on an easel.

Conducting the Activity

1. If you are mixing flour and water for paste, you might make that a part of the activity and let the children do the actual mixing. Commercially prepared paste can also be used. Paste containers should have wide mouths and be sufficiently anchored so that a child with uncontrolled movements can dip fingers in without tipping the container over. Small squeeze containers can also be used for glue.

2. Since there is no right or wrong in such an activity, a child's difficulty with coordination will not be as great a factor as in other motor activities. For first collages, have children paste strips of newspaper on a piece of art paper. Once they have mastered this technique, add other collage items from the list.
3. The activity can be endlessly varied throughout the year as you offer different backgrounds and types of collage materials. Children can use bits of color and pictures from magazines to create a collage with a story or theme.

Tips

Many children will not want to touch the glue. They will need encouragement and experience with different textures to reduce this fear of touching things.

Many children will want to wipe the glue off their hands immediately. They will need to be reminded that they can wash their hands when they have finished the project.

An interesting class project might be a large mural collage done on butcher paper that is taped to one wall. Or two or three children could work together on one large collage.

Have children present their finished products to the class, to help stimulate further development of socialization and language skills, as well as feelings of accomplishment. Don't make value judgments about the finished products—beauty is in the eye of the beholder. This may be a good activity for parents to observe, since they may be able to offer suggestions and help to their children.

Dressing

Dressing activities improve the following self-help skills:

- **buttoning**
- **zipping**
- **pulling clothes off and on.**

Preparation

Again, the most important step in preparation is providing safe, secure, even bases on which each child can sit in a fully balanced position. Tipping forward or backward without any support, or sitting on just one side of the buttocks, makes children unable to pay attention to the task at hand, since their balance is so poor.

It is easiest for orthopedically handicapped children to sit while dressing and undressing. There may be times when standing or lying on one side is more appropriate, but a sitting position usually gives a child the best balance. For children with cerebral palsy, a seated, well-balanced position minimizes the stiff and/or uncontrolled muscle movements. Children with spina bifida may feel more secure if they can stretch out their legs—on the floor or on a wide couch.

The edge of a seat may be a very insecure position, however, for children who have trouble with balance, or for children who wear leg braces. If children cannot sit in a well-balanced position without support, the easiest way to provide the necessary support is to have them sit leaning forward, with their back to you or another adult, their hips and knees bent, and their legs apart.

If children are able to stand comfortably, give them a steady and secured chair or table to use for support and as a place to put clothes throughout the dressing process.

Conducting the Activity

1. If a child can't do a particular task, do everything for the child but the last step. Gently put your hands over the child's and explain what to do. For example, put one leg, then the other, into the pant legs. Pull the pants up to the child's hips. Then, as you slip the child's thumbs under and the rest of the fingers over the waistband, say, "Now pull your pants up," and guide the child's movement. Of course, any success is followed immediately by your saying something like, "You did it! Great!" with a smile or a hug.
2. When the child can do this last step independently, do everything but the last two steps. In this example, that would mean pulling the pants up to the thighs and guiding the child's hands from thighs up until the child can do it alone. (The next step would be from the knees, then from the ankles, and then from the toes.)

   As you go through this process, be sure to do it the same way each time. That is, if you put the left leg into the pants first, *always* start with the left leg. This sameness makes the step-by-step process much easier for the child to learn.
3. As you help the child, talk about what is happening. Name the body parts, and parts of clothing: "Now let's put your right arm in the sleeve of your shirt."

This method of teaching a child dressing skills is called **backward chaining.** You do it by teaching the child each step in reverse order, from finish to start. As you progress, you link one movement to the next until the whole chain of movements adds up to the skill you wish to teach. This technique is useful for teaching other skills as well, such as the self-help skill of eating.

Tips

Follow these procedures when helping children with dressing or undressing:

- Put clothes on the more affected limb (or the one with a prosthesis) first.
- Do not force a child to use the more affected hand. Rather, allow the child to use it for support.
- Always gently straighten a stiff arm or leg *first;* then pull in the pant leg or sleeve. Don't try to put something on an already stiff limb.
- Always be sure the child's leg is bent before putting on a sock or shoe. This helps to relax the ankle and foot, and the toes are less likely to turn under stiffly.

Taking off clothes is easier for most children than putting them on. Developmentally, children learn to undress before they learn to dress. This means, for example, that unzipping and unsnapping are easier than zipping and snapping, and should be concentrated on first to provide a successful experience.

To help a child learn dressing skills, work on those skills during times of the day *other* than arrival and departure. You will have more time to pay attention to a child's special needs, without being distracted by or concerned about other children's needs. Arrival and departure times can be used to reinforce the skills already learned. But practicing the skills is best saved for less hurried moments in the day, when both you and the child can relax.

When practicing dressing skills, use clothes that are a bit oversized for the child. This will make the process easier for her or him.

Have children practice buttoning, snapping, and zipping on clothes that are on their own bodies. While undressing a doll or other toy may give them a chance to try out some of the same fine motor movements, it won't be as helpful. Too often dolls and toys have buttons and zippers that are even smaller than children's. And buttoning clothes you aren't wearing requires movements that are opposite from those needed to button your own clothes.

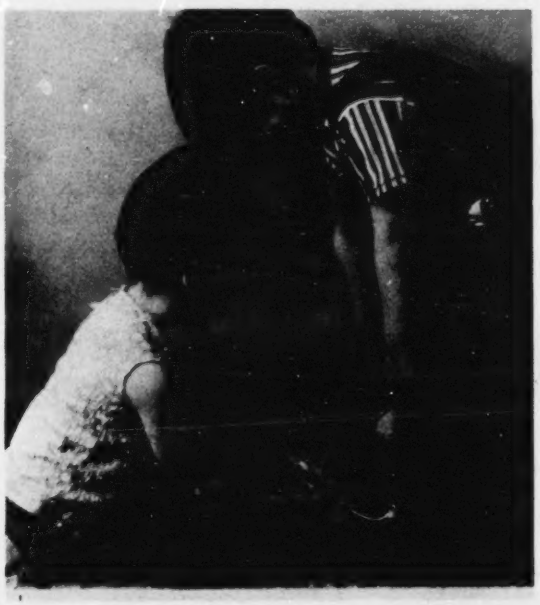
If you want to show a boy how to button or zipper, wear a woman's shirt or jacket (and vice versa). Since the front flaps of women's and men's shirts and jackets go in opposite directions, you can provide a mirror image for a child to follow.

Modifying the child's clothes can make them easier to put on and take off. Parents, friends, and other family members of the child can be very helpful in this regard. You might make the following suggestions to the person(s) responsible for buying the child's clothing:

- Avoid snaps whenever possible. Helpful substitutes are elastic waistbands or buttons. Where fasteners are necessary, substitute zippers, buttons, or velcro.
- Avoid clothes made of slippery materials. Look for clothes made out of materials with "give," such as jersey or knits.
- Try to get clothes that have loose sleeves, legs, necks.
- Replace small buttons with large ones, and enlarge buttonholes to match. Large buttons give the child more to grasp onto. A key ring or other bauble attached to each of the child's zippers will also make grasping easier.

As the child becomes more skilled with buttons and zippers, be sure to point this out to parents so that they can reinforce these skills at home. If parents are not aware of the "backward chaining" technique, share this procedure with them.

Physical therapists and occupational therapists can give you lots of support and suggestions for all these activities. You might also consult *Handling the Young Cerebral Palsied Child at Home,* by Nancy Finnie (New York: E.P. Dutton & Co., 1968), for helpful ways to bathe, dress, feed, and carry children with cerebral palsy.



6

Snack

Snack time can be an opportunity for children to improve their ability to:

- **eat independently**
- **socialize with classmates**
- **speak (asking for what they want, naming foods)**
- **coordinate eye-hand movements (fine motor)**
- **understand concepts (numbers of crackers, size of cup).**

Preparation

Self-feeding requires a number of coordinated actions that children usually learn easily. If you have a child in your class who has difficulty with self-feeding, seek out specific information on the best ways to assist the child. Specific information for each child can be obtained from the parents or from the occupational or speech therapist who works with the child. Some children require modifications of their spoon, dish, or cup to facilitate their eating and drinking. In addition, most orthopedically handicapped children need special support to sit comfortably and securely.

Find out what kinds of foods are best for specific children. Some foods stick to the roof of the mouth, while others are too hard for some children to manage. Excessive sugar should be avoided. Some children with spinal cord damage are prone to urinary infections, and should avoid citric acid, which is found in orange juice and most fruit drinks and mixes. Cranberry juice is an excellent substitute. Parents can help you determine appropriate snacks.

In general, choose foods that are nutritious and easy to manage: for example, graham crackers; bits of fresh fruit (peeled apples or pears); cold cereal bits; hard cheese (processed cheese becomes mushy and adheres to the palate); cubes of turkey or chicken, bologna, boiled ham, or peeled hot dogs; bread crusts (bread slices might become sticky).

Some special help in controlling a child's jaw, lips, and tongue might be necessary. If so, ask the speech, physical, or occupational therapist for instruction in feeding the child. Knowing how best to assist a child—in feeding and other areas—can result in a great difference in the child's overall functioning and development.

Conducting the Activity

1. Establish a routine for getting to the table and being served. Arrange for any handicapped children to be seated in the most comfortable position for eating. (You may need extra help for some children during snack.)
2. Follow a routine for cleanup also.

Tips

If a child needs a great deal of help with eating, talk to the child's parents or therapist. Other helpful feeding hints can be found in **Handling the Young Cerebral Palsied Child at Home** by Nancy Finnie.

Finger Painting

Finger painting builds motor skills in children, because it gives them practice in:

- **moving the arm and hand right, left, and in circular movements**
- **(for children who are lying over a bolster or prone board) straightening neck muscles and controlling their heads as they paint on the surface below**
- **moving the fingers**
- **using two hands at the same time.**

Finger painting is also a good activity for building sensory awareness of:

- **colors**
- **texture.**

Children will gradually learn the names of colors if the names are pointed out to them by adults. They will also learn that colors mix to form other colors, as they work with them. Eventually, conscious color selection and combinations will become part of the finger painting activity.

Finger painting also helps reduce children's fear of touching things, since fingers become the painting tool. Finally, finger painting yields a pleasing product that allows for free self-expression. Even if done in a relaxed position, the product can be attractive.

Preparation

Collect the following materials:

- finger paints (or paint ingredients)
- a stand with cut-outs for paint containers
- finger-painting paper
- 1" masking tape
- paper to cover the working surface
- smocks or aprons.

The paint stand can be made by cutting three or four holes in a wooden board and fitting the containers in the holes.

A child with a disability involving arms and hands may not be able to squeeze paint from a tube. In such cases, you should make the paints more readily available, by putting out a couple of small blobs of paint for the child's independent use. Have no more than two colors on the table or paper at any one time. Be sure that the blobs are far enough from each other so that a child with uncontrolled movements will not unintentionally mix the two. When placing paints in an easel tray or other holder, leave space between them.

Conducting the Activity

1. Have children wear large paint smocks, old shirts, or plastic aprons so they do not have to worry about getting their clothes dirty.
2. Place orthopedically handicapped children in positions that permit maximum use of their hands. Make sure that they have enough room so that uncontrollable movements of their hands and arms do not interfere with another child's picture or accidently hit another child in the head or face with paint.
3. Direct each child's hand gently in dampening the paper, and explain the process to the child: "See—we are wetting the paper and smoothing it so that it will be ready for painting. Now you can choose a color and begin. . . ."
4. Paint can go on a child's fingers, palm, or side of a fist (whatever is easiest for the child). Support the child's hand and describe the movements as he or she picks up paint and moves it around on the paper (left, right; up, down; around). By gently holding a child's arm at the elbow, you can help the child make sweeping and productive strokes.
5. Some children will need to use both hands in finger painting, for general coordination. You can stand behind the child and place one hand on each of the child's hands.
6. A child with a prosthesis can grasp a small sponge and participate in the usual finger painting activities. The child will feel more comfortable with this method if several of the other children experiment with sponges, too.

Tips

If a child is hesitant to touch the paint, you can help get him or her started. Place the child's hand palm down on a wet piece of paper, and then press the wet hand on a clean piece of paper. Usually children are pleased to see the result (a palm print), and can then be encouraged to use the paint itself. If the child is still hesitant, let him or her watch the other children paint for a time. Then place a dab of paint (preferably in the child's favorite color) on the child's fingertip, and move the child's arm so that the finger touches the paper and leaves a mark.

Some children with spina bifida seem to have difficulty drawing straight lines. The finger painting project can be adapted to encourage such children to make long straight lines with both hands. Also suggest using both hands to decorate inside the lines with "squiggles."

If child has a tendency to avoid crossing his or her midline, make special efforts to guide the child's arms to the opposite side of the paper.

You might consider adding sand to the paint to provide greater texture. If the picture does not need to be saved, children can paint on cafeteria trays and then easily rinse them off when finished. This may simplify the cleaning-up process, and costs less than finger paint paper.

Finger-painted paper can be used to wrap gifts or to cover boxes, cans, books.

Use other finger painting "media" to encourage children to touch things, and to provide different textures. Aerosol shaving foam or soap bubbles whipped with a beater can be used on a table top, tray, or paper. Pudding can also be used, on a table covered with inexpensive brown butcher paper. The advantage to using pudding is that it will promote the hand-to-mouth movements involved in self-feeding. If you use vanilla pudding, food coloring can be added to provide different colors.

Fear of failure can be minimized if every product is admired. Praise efforts, too.

Toileting

Toileting is an important self-help skill that children with physical problems may have serious difficulty with. Increased competence and independence in toileting will facilitate a child's participation in activities with groups of children. It will also increase a child's self-respect and confidence in social situations with peers, who often see dependence and toilet "accidents" as babyish.

Although other children may be curious about an orthopedically handicapped child's unusual toileting needs, they should be encouraged to view these needs as normal for that particular child. Although you do not want to separate this youngster from others unnecessarily, it might be necessary for the child to toilet alone in order to establish this self-help skill. If the child needs to have pants or a diaper changed, he or she is entitled to privacy without arousing undue interest on the part of the other children. If a separate room or a closet is not available, provide a screen for the child.

Preparation and Procedures

Toileting procedures for children who lack bladder and/or bowel control are usually handled under medical supervision and direction. A teacher should not attempt to set up a program alone. It must be coordinated with the family program planned by the child's physician. Obviously what you do must fit in with the program already in effect. If the family has no program for their child and you feel that one would be helpful, you might suggest to parents that they speak to a doctor or therapist about setting one up.

Toileting needs depend on the particular child and the length of the preschool day. Most children can be "socially acceptable" with diapers for several hours. A schedule is required for those children who must wear diapers or who still have toilet "accidents."

Full body braces often must be removed before a child can use the toilet or have diapers changed. It is important that braces be put back on correctly, to avoid injury to the child. Usually parents can provide information on how to do this.

Usually children with cerebral palsy need extra support when seated to make them feel comfortable, confident, and relaxed. If they are not secure it is difficult for them to urinate at the designated time. Some children need a special toilet seat with side and back support, or a seat belt attached to the toilet. Others can sit on a regular toilet seat, but require additional side and back supports once they are properly positioned. (An old chair with the legs removed and seat cut out can sometimes be used.)

A child with a bony frame and poor trunk control is more comfortable if a padded cover is placed over the toilet seat. These covers also make the opening smaller, thus reducing the child's fear of falling into the bowl.

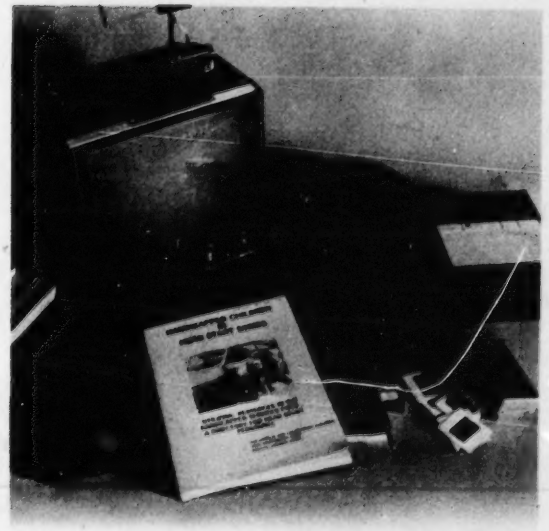
Whether or not a child in a wheelchair has bowel and bladder control, the wheelchair itself can present problems. Check with appropriate persons in your program to see if wider bathroom stalls or handrails can be provided. Transferring from wheelchair to toilet seat can be done in several ways. Again, consult the child's therapist for the best way to make this transfer.

It is imperative that an adult be nearby to help physically handicapped children with toileting. If you are uncomfortable about remaining in the bathroom with the child, be sure that it does not show on your face or in your actions. Children can pick up these cues very easily, and it may add to their own embarrassment. They probably do not want you there but they need the help.

You will need to establish a signal system so that the child can inform you when he or she wants to go to the lavatory.

Chapter 7:

Other Sources of Help



There are many sources of help available.

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110 ***In addition to the specialists in your program, community, or region, there are other sources of help you can draw on to assist you with children who have orthopedic handicaps. Around the country are a number of associations concerned with physical handicaps. They can send you helpful information about such handicaps and about what you can do with the children in the classroom. There are also many good books and articles that could prove useful. These are listed in the bibliography at the end of this chapter.***

Professional and Parent Associations, and Other Organizations

For each association given in this section, we have listed their national addresses, whether they have local branches, what they do, and how they can help you.

American Association of University Affiliated Programs

This organization is most interested in providing diagnostic services to individuals with developmental disabilities and in providing training for people who work with handicapped persons. University Affiliated Facilities provide services in areas such as early childhood and special education, pediatrics, child development, child psychology, social work, child neurology, speech pathology, physical and occupational therapy, nutrition, and nursing. Nearly 50 UAFs have been established throughout the country. The association has an official working relationship with Head Start. By writing to the address below you can find out if there is a program near you that can provide diagnostic, treatment, training, and consultation services. For more information write to:

American Association of University Affiliated Programs
Suite 406
2033 M Street
Washington, D.C. 20036

The Arthritis Foundation

The Arthritis Foundation is a voluntary health agency seeking the total answer — cause, prevention, and cure — to the nation's number one crippling disease. One of the foundation's functions is to refer people with arthritis to doctors, clinics, and hospitals. Films, books, pamphlets, and speakers are available. For more information, call your local chapter or write to:

The Arthritis Foundation
1212 Avenue of the Americas
New York, New York 10036

Closer Look

Funded through the Bureau of Education for the Handicapped, U.S. Office of Education, this special project attempts to provide bridges between parents and services for handicapped children, and to help parents become advocates for comprehensive services for their own handicapped child as well as for others. Closer Look publishes a newsletter about handicaps and new programs, as well as information of special interest to parents. The staff will also respond to questions that you may have. By writing to them you can be added to their mailing list.

This organization has regional branches. For more information write to:

Closer Look
Box 1492
Washington, D.C. 20013

Council for Exceptional Children Information Center

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This information center provides abstracts of current research and bibliographies of information currently available in publications and nonprint media. It also provides annotated listings of agencies that serve exceptional children and their families. Contact:

Council for Exceptional Children
Information Center
1920 Association Drive
Reston, Virginia 22091

Instructional Materials Centers

These centers have media and materials suitable for use with orthopedically handicapped children. Often the director of the center can demonstrate materials, suggest especially good materials, and consult with you about your needs.

To find out about a Center, contact the Resource Access Project in your region, directors of special education in your state department of education, or colleges and universities' special education departments.

112 **Muscular Dystrophy Associations of America**

This is a nonsectarian voluntary health organization that fosters research to seek cures or effective treatments for muscular dystrophy and related neuromuscular diseases. Other services include diagnostic evaluation, physical therapy braces and other appliances, transportation, recreation programs, and referral to programs provided by private agencies, state agencies, clubs, and self-help groups. The organization publishes a bi-monthly newsletter and general and technical literature.

There are more than 250 affiliated chapters throughout the United States. For more information, check the telephone book for the center nearest you, or write to:

Muscular Dystrophy Associations of America
810 Seventh Avenue
New York, New York 10019

The National Association of the Physically Handicapped

This organization seeks to promote the economic, physical, and social welfare of all physically handicapped. The NAPH National Newsletter is published quarterly. There are over 35 autonomous local chapters. To find the chapter nearest you, or to obtain more information, write to:

The National Association of the Physically Handicapped
6473 Grandville Avenue
Detroit, Michigan 48228

National Center for Law and the Handicapped, Inc.

This organization was established to ensure equal protection under the law for handicapped people. It participates in selected court cases by consulting with the lawyers of handicapped people whose rights may have been violated. Sometimes NCLH provides a lawyer for a handicapped person. The staff can answer questions and provide information about legal issues affecting children who are physically handicapped.

For more information write to:

National Center for Law and the Handicapped, Inc.
1235 North Eddy Street
South Bend, Indiana 46617

National Easter Seal Society for Crippled Children and Adults

The Society is a major provider of rehabilitation services to disabled persons of all ages with orthopedic, neurological, or neuromuscular disabilities; sensory, communication, and learning disorders; or psychological and social dysfunction. Others served are parents and families of disabled persons and lay and professional persons seeking information.

The Society conducts programs of evaluation, treatment, education, vocational training, and advocacy. Support services such as equipment loan and transportation are also provided. Nearly 2,000 programs and facilities are organized on a state and/or local basis. The Chicago headquarters serves as a national spokesman about the Society, as an advocate of the disabled, and in support and leadership of the programs of its affiliate Societies. As an advocate, response is given to requests for information, and testimony is prepared on issues vital to the disabled.

The National Society building in Chicago houses a library collection of books, periodicals, and pamphlets on rehabilitation. The Society's Information Center produces and/or disseminates several publications, including a professional journal entitled **Rehabilitation Literature.** A publications catalog is available. For more information write:

National Easter Seal Society for Crippled Children and Adults
2023 West Ogden Avenue
Chicago, Illnois 60612

The National Foundation/ March of Dimes

The National Foundation/March of Dimes has as its goal the prevention of birth defects. Its principal programs and activities include funding basic and clinical research, funding medical service programs, offering professional education, and providing health information. This foundation publishes pamphlets, booklets, and audio-visual materials for the general public on the prevention and treatment of birth defects.

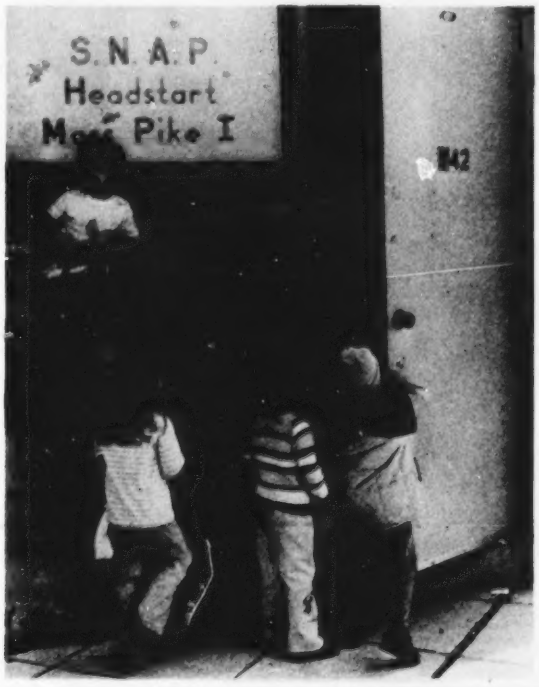
March of Dimes has local chapters. For more information write to:

The National Foundation/
March of Dimes
1275 Mamaroneck Avenue
White Plains, New York 10605

Resource Access Projects

Resource Access Projects (RAPs) are designed to link local Head Start staff with a variety of resources to meet the special needs of handicapped children. They function as brokers, facilitating the delivery of training and technical assistance to meet local Head Start program needs in the area of services to handicapped children. While the RAP's will assist local grantees in determining and meeting their needs in the area of handicapped services, the cost of any required training or technical assistance must be borne by the grantee and/or the resource provider.

RAPs have been established to identify all possible sources of training and technical assistance, and to enlist their support in helping Head Start find and serve handicapped children. Examples of resources include public health departments, community mental health centers, speech and hearing clinics, developmental disabilities councils, universities and colleges, professional associations, and private providers of training, technical assistance, materials, and equipment.



DHEW Region	States Served	Resource Access Project (RAP)
1	Maine New Hampshire Vermont Connecticut Massachusetts Rhode Island	Education Development Center, Inc. 55 Chapel Street Newton, Massachusetts 02160
2	New York New Jersey Puerto Rico Virgin Islands	New York University School of Continuing Education 3 Washington Square Village, Apt. 1M New York, New York 10012
3	Pennsylvania West Virginia Virginia Delaware Maryland District of Columbia	PUSH/RAP Mineral Street Annex Keyser, West Virginia 26726
4	North Carolina South Carolina Georgia Florida Mississippi	Chapel Hill Training Outreach Project Lincoln School Merritt Mill Road Chapel Hill, North Carolina 27514
	Kentucky Tennessee Alabama	1101 17th Avenue, South Nashville, Tennessee 37212
5	Illinois Indiana Ohio	University of Illinois Colonel Wolfe Preschool 403 East Healey Champaign, Illinois 61820
	Minnesota Wisconsin Michigan	Portage Project Resource Access Project 412 East Slifer Street P.O. Box 564 Portage, Wisconsin 53901
6	Texas Louisiana Oklahoma Arkansas New Mexico	Contract not awarded at time of printing.

DHEW Region	States Served	Resource Access Project (RAP)
7	Missouri Kansas Iowa Nebraska	University of Kansas City Medical Center Children's Rehabilitation Unit 39th & Rainbow Boulevard Kansas City, Kansas 66103
8	Colorado North Dakota South Dakota Montana Utah Wyoming	Mile High Consortium Hampden East I-Room 215 8000 East Girard Avenue Denver, Colorado 80231
9	California Arizona Hawaii Nevada Pacific Trust Territories	Los Angeles Unified School District Special Education Division 450 North Grand Avenue Los Angeles, California 90012
10	Washington Oregon Idaho	University of Washington Model Preschool Center for Handicapped Children Experimental Education Unit, WJ-10 Seattle, Washington 98195
	Alaska	Easter Seal Society for Alaska Crippled Children and Adults 726 E. Street Anchorage, Alaska 99501

116 **Spina Bifida Association of America**

The Spina Bifida Association of America is an organization composed of local chapters whose goal is improved understanding, research, provision for quality medical and rehabilitative services, and equality of opportunity for all persons born with spina bifida. Some of these persons are retarded. SBAA is a source of information about the birth defect spina bifida and of moral support for families affected by it.

For further information write:

Spina Bifida Association of America
343 S. Dearborn, Suite 319
Chicago, Illinois 60604

United Cerebral Palsy Associations

This national voluntary health organization is dedicated to a continuing, overall attack on cerebral palsy. Its primary function is to seek solutions to the multiple problems of cerebral palsy, with affiliates providing direct services to persons with cerebral palsy at state and local levels. Services include: physical, occupational, and speech therapy from trained therapists; referral to appropriate state and private agencies, counseling for parents; educational and recreational programs; and films, pamphlets, and other information for the general public. For more information, check the phone book for the telephone number of the center nearest to you or write to:

United Cerebral Palsy Associations
66 East 34th Street
New York, New York 10016

Bibliography

Every Head Start center or other preschool should have a good first-aid book on hand at all times. Once such book is:

Green, Martin I. **Sigh of Relief: The First-Aid Handbook for Childhood Emergencies.** New York: Bantam Books, 1977.

Many books have been published on children with orthopedic handicaps. The ones mentioned are some of those that are especially good for understanding what orthopedic handicaps are and for helping you work with orthopedically handicapped children in your classroom.

Books About Orthopedic Handicaps

Apgar, U., and Beck, J. **Is My Baby All Right?** New York: Trident Press, 1973.

Describes many handicapping conditions and explains clearly how and why these conditions occur, and what effects they may have on the child.

Calabro, John J., and Wyhert, John. **"What Parents Need to Know About Juvenile Arthritis"** (n.d.) Available from the Arthritis Foundation, 1212 Avenue of the Americas, New York, N.Y. 10036.

A useful three-page pamphlet that describes how juvenile rheumatoid arthritis affects children and the kinds of treatment usually prescribed.

Kubler-Ross, Elisabeth. **On Death and Dying.** New York: Macmillan Publishing Co., 1969.

This book can be very helpful for any adult who is helping a parent or child cope with a terminal condition such as muscular dystrophy.

Kvaraceus, W.C., and Hayes, E.N. **If Your Child Is Handicapped.** Boston: Porter Sargent, 1969.

Includes parents' descriptions of their experiences and problems with their handicapped children.

Muscular Dystrophy Association. **Around the Clock Aids for the Child with Muscular Dystrophy** (n.d.) Available from Muscular Dystrophy Associations of America, 810 Seventh Avenue, New York, N.Y. 10019.

This useful booklet describes how parents and teachers can help children whose muscular dystrophy has progressed to such an extent that they are limited in their ability to move their arms or legs. Includes suggestions for adapting eating utensils; helping a child move from a wheelchair to a chair, bed, or bathtub; and dressing and undressing.

Please Help Us Help Ourselves. (n.d.) Available from your local United Cerebral Palsy Center, or from United Cerebral Palsy, 321 West 44th Street, New York, N.Y. 10036.

Illustrates the simple construction of inexpensive adaptive equipment.

Spock, B., and Lerrigo, M. **Caring for Your Disabled Child.** New York: Collier Books, 1976.

Includes helpful suggestions on feeding, medical care, education, and more, for a disabled child.

118 Stein, S. **About Handicaps: An Open Family Book for Parents and Children Together.** New York: Walker & Co., 1974.

The adult text describes and explains the motivation and feelings that are found in the easier story for children. A book to be shared.

"This Is Patient Service." **Patient and Community Services** (1976). Available from Muscular Dystrophy Association of America, 810 Seventh Avenue, New York N.Y. 10019.

Describes services available to children with muscular dystrophy and to their families.

Travis, Georgia. **Chronic Illness in Children: Its Impact on Child and Family.** Stanford, California: Stanford University Press, 1976.

Written for people working with handicapped children and their families. Chapters on muscular dystrophy and spina bifida. Includes descriptions of the conditions, causes, symptoms, and effects (both physical and emotional) upon the child at different age levels. Also describes methods of diagnosis and treatment.

Weiner, Florence. **Help for the Handicapped Child.** New York: McGraw-Hill Book Co., n.d.

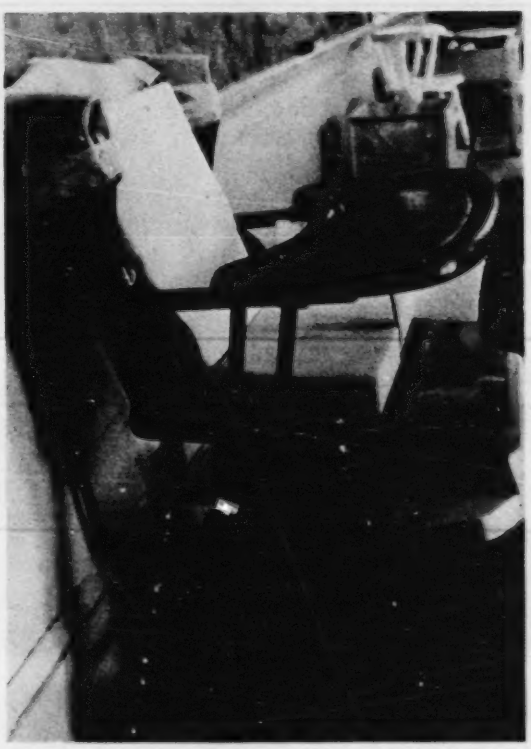
This is an excellent source of information on handicapping conditions and available services. For each condition it gives information on the condition itself, vocabulary, treatment, prognosis, medical progress, future medical goals, tests, service agencies, and voluntary associations.

What Is Cerebral Palsy? (n.d.) Available free from United Cerebral Palsy Associations, Inc., 66 East 34th Street, New York, N.Y. 10016.

Gives background information about cerebral palsy and what can be done to help.

Ziebell, Beth. **As Normal as Possible: A Parents' Guide to Healthy Emotional Development for Children with Arthritis** (1976). Available from The Arthritis Foundation, Southwest Chapter, P.O. Box 6802, Tucson, Ariz. 85733.

This handbook for parents can serve as a guide for the healthy emotional development of their child with arthritis. Includes a brief description of juvenile rheumatoid arthritis, a section on appropriate ongoing medical care, and many ideas and practical suggestions on such topics as going to school, learning to make decisions, and helping children feel worthwhile.



There is information available to help you adapt equipment inexpensively.

Spina Bifida

The following materials about spina bifida are all available from Spina Bifida Association of America, National Headquarters, 343 S. Dearborn, Suite 319, Chicago, Ill. 60604.

From the First Day.
A non-pessimistic introduction to the new parents of a spina bifida child, written by parents. Highly recommended by Spina Bifida Association of America.

Growing Up with Spina Bifida.
Answers some of the questions asked by parents as their children grow and develop.

The Penny Dropper.
Contains references to books for spina bifida parents. Gives everyday hints, lists new items on the market, and includes a comprehensive section on equipment you can make yourself. Highly recommended by the Spina Bifida Association.

Pieper, Betty. **Straight Talk: Parent to Parent.**
A parent's discussion of her child with spina bifida. Full of hints and just plain good advice.

You Are Not Alone.
A comprehensive guide to sources of care and treatment for the parent of a handicapped child.

Your Child with Spina Bifida
Enlarged and revised 1972 edition. Excellent articles on all aspects of spina bifida in children.

Guides to Teaching and Classroom Activities

Aiello, Barbara. **Making It Work** (1976). Available from CEC Information Center, Special Education IMC/RMC Network, 1920 Association Drive, Reston, Va. 22091.

Describes how to set up programs and gives examples of model mainstream programs at preschool, elementary, and high school levels.

Connor, Frances P. "The Education of Children with Crippling and Chronic Medical Conditions," **Education of Exceptional Children and Youth.** Edited by William G. Cruickshank and G. Orville Johnson. Englewood Cliffs, N.J.: Prentice-Hall, 1975, pp. 352-465.

This textbook discusses all handicaps. The chapter cited discusses education for orthopedically handicapped children from preschool age through adulthood.

D'Audney, Weslee, and Dollis, Dorothy. **Calendar of Developmental Activities for Preschoolers** (1975) Available from Meyer Children's Rehabilitation Institute, University of Nebraska Medical Center, Omaha, Neb. 68101.

This resource book on preschool activities is arranged in calendar format. The simpler activities are presented in the fall months and the more complex ones are presented in the spring months, allowing you to choose the activity for the child's developmental level. Each activity names the skill area involved.

120 D'Audney, Weslee, ed. **Giving a Head Start to Parents of the Handicapped** (1976). Available from Meyer Children's Rehabilitation Institute, University of Nebraska Medical Center, Omaha, Neb. 68101

This manual is designed primarily for Head Start teachers. Its purpose is to help teachers provide support and encouragement to parents of children with handicaps. It discusses such subjects as the value of mainstreaming, legal rights of the handicapped and their families, and the dangers of labeling. It also provides specific suggestions for working with parents of special needs children, including those with orthopedic handicaps.

The Exceptional Parent Magazine. Psy-Ed. Corporation, 20 Providence Street, Room 708, Statler Office Building, Boston, Mass. 02116

Addressed to the parents and teachers of handicapped youngsters and adults, this magazine has many articles of interest, including "what to do," "how to do it," and "where to get help." For a subscription, write to: **The Exceptional Parent,** P.O. Box 4944, Manchester, N.H. 03108.

Findlay, Jane, et al. **A Planning Guide: The Preschool Curriculum — The Child, The Process, The Day.** Chapel Hill, N.C.: Chapel Hill Training Outreach Project, n.d.

This book elaborates on curriculum information found in the **Learning Accomplishment Profile,** developed by Anne Sanford, and presents 44 preschool curriculum units intended for developmentally delayed or impaired children. It has a section on curriculum (who determines it, what it is, and what goes into it), a section on methods and principles (preparing instructional objectives, task analysis, error-free learning, and positive reinforcement), the 44 curriculum units, with objectives and skill sequences, and bibliographies. It is helpful although not necessary, to use the Planning Guide together with the LAP.

Haslem, R.H.A., and Valletutti, P.J. **Medical Problems in the Classroom.** Baltimore: University Park Press, 1975.

Textbook on a variety of handicapping conditions. Includes chapter on cerebral palsy and on orthopedic problems. Describes the conditions and discusses the teacher's role in diagnosing and managing medical problems in the classroom. Very useful.

Hogden, Laurel, et al. **School Before Six: A Diagnostic Approach** (1974). Available from Cemrel, Inc., 3120 59th Street, St. Louis, Mo. 63139

School Before Six is printed in two volumes. Volume I includes procedures for assessing young children's learning needs and strengths through testing procedures in four developmental areas: large, small, and perceptual motor skills; language; social-emotional skills; and conceptual skills. General teaching strategies and activities are suggested to help children develop in each of these areas. Volume II includes a wealth of activities in areas such as science, art, table games, food preparation, language, social science, and music. Volume I is extensively cross-referenced to Volume II to simplify the selection of appropriate activities for specifically diagnosed situations.

Pieper, Betty. **The Teacher and the Child with Spina Bifida.** Chicago: Illinois Spina Bifida Association, 1975. Available from: Shirley Saville, Upstate Spina Bifida Association, Argyle, N.Y. 12809.

Excellent for both parents and teachers of children with spina bifida. Many useful suggestions for helping the child manage in a school setting.

The Portage Guide to Early Education, rev. ed. Portage, Wis.: Cooperative Educational Service Agency No. 12, 1976.

This guide includes three parts: a checklist of skills for determining an individual child's progress, a card file listing activities that can be used to teach these skills, and a manual of directions for conducting the activities. The areas covered in the program are: infant stimulation, socialization, language, self-help, cognitive skills, and motor skills.

Steps to Independence: A Skills Training Series for Children with Special Needs (n.d.). Available from Research Press, Box 3177, Champaign, Ill. 61820.

This program is designed expressly for delivery to children through teachers, parents, and paraprofessionals. Skills are grouped as follows: early self-help skills, intermediate self-help skills, advanced self-help skills, and behavior problems.

Teaching Exceptional Children. Available from CEC Information Center, Special Education IMC/RMC Network, 1920 Association Drive, Reston, Va. 22091.

This magazine provides many ideas for working with exceptional children.

Tucker, Dorothy; Seabury, Barbara-Jeanne; and Canner, Norm. **Foundations for Learning with Creative Art and Creative Movement.** Boston: Massachusetts Division of Mental Health, Department of Mental Health, 1967.

This book, originally developed for Massachusetts Head Start, is a good source of curriculum ideas in the areas of language and communication, large and fine motor development, and sensory and body image.

Books for Children

Fassler, J. **Howie Helps Himeslf.** Chicago: Albert Whitman & Co., 1975.

A book for children about a child with cerebral palsy. Tells the story of a child who wanted to be able to move his wheelchair by himself.

Green, Mary. **Is It Hard? Is It Easy?** New York: William R. Scott, 1960.

A boy and girl find that different things are hard and easy for them.

Rey, M. **Curious George Goes to the Hospital.** Boston: Houghton Mifflin Co., 1966.

The famous curious monkey and his antics in the hospital can cheer up an unhappy young patient.

Salazar, Violet. **Squares Are Not Bad.** Racine, Wis.: Golden Press, 1967.

This picture book is about circles who learn to accept squares.

Stein, Sara B. **A Hospital Stay: An Open Family Book for Parents and Children Together.** New York: Walker and Co., 1974.

This is an excellent book to help prepare children aged three to eight for hospitalization.

Stein, Sara B. **About Handicaps: An Open Family Book for Parents and Children Together.** New York: Walker and Co., 1974.

An excellent story about handicaps. Simple text and beautiful photographs. A companion text for teachers and parents provides help in answering questions children may raise about handicaps.

Southall, I. **Let the Balloon Go.** Los Angeles: Martin Press, 1968.

Story of a boy with cerebral palsy who decides that grownups are not going to say "You can't do it" anymore.

Guides to Other Resources

CEC Information Center. **A Selected Guide to Public Agencies Concerned with Exceptional Children.** Available from CEC Information Center, Special Education IMC/RMC Network, 1920 Association Drive, Reston Va. 22091.

This is an annotated listing of agencies that offer services to exceptional children and their families. The listing was published in May 1972.

Know Your Rights. Washington, D.C.: National Center for the Handicapped, 1974. 123

A guide to the rights of all children to an appropriate education. Contains key questions to ask, how to find the answers, and sources of help. For a free copy, write to: Closer Look, P.O. Box 1492, Washington, D.C. 20013.

Practical Advice to Parents. Washington, D.C.: National Center for the Handicapped, 1974.

A guide to services for handicapped children. Available free from Closer Look, P.O. Box 1492, Washington, D.C. 20013

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Films, Slide Tapes, and Other Materials

For Teachers and Parents

Care Through Parents: Creating a New Space in Pediatrics, Carol Hardgrove.

Color film, 16 mm, 14 minutes.

Available for rental from:

University of California
Extension Media Center
Berkeley, California 94720

Each Child, Every Child. Produced in 1974 by the American Academy of Pediatrics and University Hospital School, Iowa City, Iowa.

Slide tape, 16 minutes.

Purchase from:

Audio Visual Department
University of Iowa
Iowa City, Iowa

We Won't Leave You, by Edward A. Mason, M.D.

Film, 16 mm, 14 minutes.

Available for rental from:

Edward Mason, M.D.
33 Fenwood Road
Boston, Massachusetts 02215

When a Child Enters the Hospital. Text and narration by Muriel Sugarman, M.D.

Film, 16mm, 16 minutes.

Available for rental from:

Polymorph Films
331 Newbury Street
Boston, Massachusetts 02115

For Children

The Abled Disabled. A kit of instructional materials designed to help children understand people with physical limitations. Available from:

Shirley Saville
Upstate Spina Bifida Association
Argyle, New York 12809

DUSO (Developing Understanding of Self and Others). Includes books, records, posters, puppets, and a teacher's manual. Available from:

American Guidance Service, Inc.
Circle Pines, Minnesota 55041

Appendix

Your observations are important in gaining an accurate picture of a child's development.

Screening and Diagnosis

This section describes the nature and purpose of screening and diagnosis, and the use of tests in each of these processes. The overall goal of both processes is to evaluate or assess a child's functioning and to identify problem areas, if any exist.

Screening

Screening is a process that identifies children who need specific treatment (for example, eyeglasses or immunization shots) **or who need to be referred for a diagnostic evaluation.** Screening is therefore an important tool in the early identification of handicapped children.

Screening procedures such as checklists and tests are inexpensive, quick, and easily administered. They give the screener an overview of a child's performance. Teachers, aides, and others need to be trained to use a particular screening procedure correctly. For the screening services that must be provided for every child, see Project Head Start Performance Standards.

Not all children who fail a screening test are found to have a problem when they are given a full diagnostic evaluation. This is because the results of screening tests are not exact, since the tests do not assess in depth a child's functioning in a given area. Also, because screening is done in a limited amount of time, the screener may not realize if a certain child is not performing at his or her best at that particular time. For these reasons, a child who is not handicapped may fail a screening and be referred for further evaluation.

On the other hand, some children who pass a screening test may, in fact, have a problem that wasn't detected in the screening. If you have a child in your class who has passed the standard screening tests and you still feel there may be something wrong, do not hesitate to ask an appropriate professional to look at the child more closely.

Diagnosis

Diagnosis is a process of gathering information from a variety of sources in order to get a comprehensive picture of a child's functioning and to identify problem areas. The diagnostic process assesses both physical and psychological functioning.

A variety of tools should be used in the diagnostic process: interviews (with parents and other adults who know the child well, with the child, with social agency personnel the child has been receiving services from), psychological tests, medical and other reports/tests of physical functioning, and other sources of information about the child. The tests that are used in the diagnostic process take an in-depth look at a child's skills in particular developmental areas. In Project Head Start, diagnosis is to be conducted by an interdisciplinary team of specialists (or a professional who is qualified to diagnose the specific handicap). The diagnostic process should involve:

1. A categorical diagnosis of a child, using Project Head Start diagnostic criteria, to be used solely for reporting purposes.

2. A functional assessment of a child. This functional assessment is a developmental profile that describes what the child can and cannot currently do and that identifies areas requiring special education and related services.

3. An individualized program plan based upon the functional assessment and developed jointly by the diagnostic team, the parents, and the child's teacher.

4. Ongoing assessment of the child's progress by the teacher, the child's parents, and (as needed) the diagnostic team.

The results of the diagnostic process should inform the teacher and parents as to the child's strengths and weaknesses — and hence the child's needs in terms of further learning. The results of the diagnostic process often *do not* tell the teacher or parents what they should do to help the child in the identified problem areas. Diagnosticians themselves, depending on their knowledge of classrooms and of specific teaching techniques, may be able to discuss with the teacher and parent specific ways in which they can help the child in the classroom and at home. Often the teacher or parent needs to take the initiative in order to obtain this kind of information from a diagnostician.

Testing

The selection of appropriate tests, their administration, and their interpretation is often a difficult process, requiring a great deal of expertise. Sometimes the precise test needed has simply not yet been developed, and a diagnostician must use the best of what is available and then interpret the results with great caution. Many factors can lead to inappropriate testing or inaccurate test results:

- **mistaking one handicap for another**
- **mistaking cultural differences for handicaps**
- **mistaking normal physical or mental immaturity for handicaps**
- **testing a child who is not used to test-like situations**
- **testing a child when he or she is not feeling well**
- **testing a child in a language that is not his or her home language**
- **testing a particular developmental area in a child by requiring a response that involves skills in which the child is handicapped (for example, testing cognitive functioning by requiring a verbal response from a speech-impaired child, or a motor response from an orthopedically handicapped child).**

Even if children are given tests that are appropriate to their age, cultural background, and suspected handicaps — and that are methodologically valid and reliable — test results can be inaccurately interpreted.

To ensure that tests are appropriate to a specific purpose, and that they are administered and interpreted correctly, any screening test that a teacher wants to use should be discussed ahead of time with a trained professional who is knowledgeable about the test. Tests used for diagnostic purposes should be administered and interpreted by specialists trained in the use of the test.

In addition to interviews and histories, your own continuing observation of a child in a variety of situations in your preschool program is an invaluable tool in understanding and helping a child learn. During the preschool years, children experience a great amount of development and change in all areas. This means that ongoing assessment, balanced against over-testing, is needed to provide a more accurate picture of a child's developing skills and functioning. Ongoing assessment can help prevent mislabeling of children.

For additional information on the diagnostic process — including procedures and persons — contact the Resource Access Project in your area.

For additional information on tests, write:

Head Start Test Collection
Educational Testing Service
Princeton, New Jersey 08540

Glossary

Abduction: *Movement of a limb outward (away) from the body.*

Adduction: *Movement of a limb inward (toward) the body.*

Amputation: *The removal of a part of the body, especially by surgery.*

Anomaly: *Abnormality.*

Arthritis: *Inflamation of a joint or joints.*

Asymmetrical: *Unequal; lack of similarity in form between two sides of the body.*

Ataxic: *Unbalanced and jerky. Ataxic movements are characteristic of one type of cerebral palsy.*

Athetoid: *Moving uncontrollably and continuously. Athetoid movements are characteristic of one type of cerebral palsy.*

Automatic movements: *Necessary movements done without thought or effort.*

Balance: *Ability to keep steady position.*

Catheter: *Small, flexible tube inserted into a body channel to distend or maintain an opening to an internal cavity.*

Cerebral palsy: *Disorder of posture, muscle tone, and movement, resulting from brain damage.*

Choreoathetosis: *Type of cerebral palsy in which there are uncontrolled muscle movements in all four limbs of the body and sometimes in the face.*

Clonus: *Convulsion characterized by rapidly alternating muscular contraction and relaxation.*

Contracture: *Permanently tight muscles and joints.*

Coordination: *Harmonious functioning of muscles or groups of muscles in movement.*

Deformity: *A bodily malformation or distortion in which the body or limbs are fixed in abnormal positions.*

Digit: *Finger or toe.*

Diplegia: *Condition of cerebral palsy with major involvement of the legs and minor involvement of the arms.*

Distractible: *Not able to concentrate.*

Dystrophy: *Weakness and degeneration of muscle.*

Equilibrium: *Balance.*

Eversion: *Turning out.*

Extension: *Straightening of trunk and limbs of body.*

Extensor pattern: *Tendency to straighten the whole body when startled.*

Flexion: *Bending of elbows, hips, knees, etc.*

Floppy: *Loose or weak posture and movements.*

Handling: *Holding and moving a child's body, with or without the help of the child.*

Head control: *Ability to control the position of the head.*

Hemiplegia: *Condition of cerebral palsy with major involvement of one side of the body.*

Hydrocephalus: *Congenital condition in which the accumulation of the fluid in the brain causes enlargement of the skull.*

Intermittant catheterization: *Method used for aiding urination in a child with spina bifida. Usually the child is placed on a schedule of going to the bathroom every two to four hours. When the child is seated on the toilet, a small plastic tube (catheter) is inserted gently into the canal leading from the bladder (urethra). The child can then empty the bladder completely.*

Inversion: *Turning in.*

Involuntary movements: *Unintended movements.*

Motor patterns: *The ways in which the body and limbs work together to make movement possible.*

Movement: *Change of position.*

Occupational therapy: *Treatment given to improve movement for daily living.*

Paraplegia: *Condition of cerebral palsy with major involvement in the legs.*

Passive: *Not participating, acting, or operating.*

Pathological: *Pertaining to or caused by disease.*

Patterns: *See motor patterns.*

Perseveration: *Unnecessary repetition of movement and/or speech.*

Physiotherapy: *Treatment of disorders of movement.*

Post-ictal sleep: *The sleep that occurs naturally after seizures. It may last for a few minutes to a few hours.*

Posture: *The position or attitude of the body or of bodily parts.*

Primitive movements: *Infantile movements.*

Pronation: *Turning of the palm downward or backward.*

Prone: *Lying on belly.*

Prosthetic device: *Artificial limb. Also called* ***prosthesis.***

Pylon: *A primitive, artifical appliance used to replace a limb or a portion of a limb.*

Quadraplegia: *Condition of cerebral palsy with major involvement of arms and legs.*

Reflexes: *Postures and movements completely out of child's control.*

Remission: *Period during which the symptoms of a condition disappear for an unpredictable period of time.*

Righting: *Ability to put in or restore the head and body to a proper position when in an abnormal or uncomfortable posture.*

Rigidity: *Very stiff movements and posture.*

Rotation: *Turning or spinning on an axis.*

Scissor pattern: *Body movement in which one leg crosses over the other one.*

Sensation: *Feeling.*

Shunt: *Tube implanted to drain excess fluid from the brain to another part of the body.*

Skill: *Ability to perform a task.*

Spasm: *Sudden tightening of the muscles. Spasms are characteristic of one type of cerebral palsy.*

Spasticity: *Stiffness.*

Speech therapy: *Treatment given to develop or improve speech, and to help with feeding problems.*

Spina bifida: *Cleft spine; congenital condition resulting in spinal cord damage.*

Status epilepticus: *Refers to a situation in which a person has two major seizures, one right after the other. Signals an emergency; an ambulance should be called immediately. Extremely rare.*

Stoma: *Opening in the abdominal wall, created through surgery, to allow the urine from the kidneys to drain into a collecting bag.*

Stump: *The remaining portion of a limb.*

Supine: *Lying on back.*

Symmetrical: *Similarity in form between two sides of the body.*

Systemic: *Refers to a disease that can exist throughout the body. Arthritis is an example of a systemic disease.*

Tone: *Firmness of muscles.*

Tonic neck reflex: *Uncontrollable movement in which turning of the head causes one arm to straighten and stiffen, and the other to bend.*

Trunk: *The human body excluding the head and limbs; torso.*

Ureter: *Duct that carries urine from kidney to the urinary bladder.*

Urethra: *The canal through which urine leaves the body.*

Urinary ostomy: *An operation that allows the urine from the kidneys to drain through an opening (stoma) in the abdominal wall into a collecting bag, which is emptied periodically throughout the day.*

Voluntary movements: *Intentional movements made with concentration.*

Voluntary muscles: *All the muscles in the body in which there is conscious control over the contraction.*

Chart of Normal Development: Infancy to Six Years of Age

The chart of normal development on the next few pages presents children's achievements from infancy to six years of age in five areas:

- **motor skills (gross and fine)**
- **cognitive skills**
- **self-help skills**
- **social skills**
- **communication skills (understanding language and speaking).**

In each skill area, the age at which each milestone is reached *on the average* is also presented. This information is useful if you have a child in your class who you suspect is seriously delayed in one or more skill areas.

However, it is important to remember that these milestones are only average. From the moment of birth, each child is a distinct individual, and develops in his or her unique manner. No two children have ever reached all the same developmental milestones at the exact same ages. The examples that follow show what we mean.

By nine months of age, Gi Lin had spent much of her time scooting around on her hands and tummy, making no effort to crawl. After about a week of pulling herself up on chairs and table legs, she let go and started to walk on her own. Gi Lin skipped the crawling stage entirely and scarcely said more than a few sounds until she was 15 months old. But she walked with ease and skill by 9½ months.

Marcus learned to crawl on all fours very early, and continued crawling until he was nearly 18 months old, when he started to walk. However, he said single words and used two-word phrases meaningfully before his first birthday. A talking, crawling baby is quite a sight!

Molly worried her parents by saying scarcely a word, although she managed to make her needs known with sounds and gestures. Shortly after her second birthday, Molly suddenly began talking in two- to four-word phrases and sentences. She was never again a quiet child.

All three children were healthy and normal. By the time they were three years old, there were no major differences among them in walking or talking. They had simply developed in their own ways and at their own rates. Some children seem to concentrate on one thing at a time—learning to crawl, to walk, or to talk. Other children develop across areas at a more even rate.

As you read the chart of normal development, remember that children don't read the baby books. They don't know they're supposed to be able to point out Daddy when they are a year old, or copy a circle in their third year. And even if they could read the baby books, they probably wouldn't follow them! Age-related development milestones are obtained by averaging out what many children do at various ages. No child is "average" in all areas. Each child is a unique person.

One final word of caution. As children grow, their abilities are shaped by the opportunities they have for learning. For example, although many five-year-olds can repeat songs and rhymes, the child who has not heard songs and rhymes many times cannot be expected to repeat them. All areas of development and learning are influenced by the child's experiences as well as by the abilities they are born with.

Chart of Normal Development

	Motor Skills: Gross Motor Skills	Fine Motor Skills	Communication Skills: Understanding of Language	Spoken Language
0-12 Months	Sits without support. Crawls. Pulls self to standing and stands unaided. Walks with aid. Rolls a ball in imitation of adult.	Reaches, grasps, puts object in mouth. Picks things up with thumb and one finger (pincer grasp). Transfers object from one hand to other hand. Drops and picks up toy.	Responds to speech by looking at speaker. Responds differently to aspects of speaker's voice (for example, friendly or unfriendly, male or female). Turns to source of sound. Responds with gesture to **hi, bye-bye** and **up**, when these words are accompanied by appropriate gesture. Stops ongoing action when told **no** (when negative is accompanied by appropriate gesture and tone).	Makes crying and non-crying sounds. Repeats some vowel and consonant sounds (babbles) when alone or when spoken to. Interacts with others by vocalizing after adult. Communicates meaning through intonation. Attempts to imitate sounds.
12-24 Months	Walks alone. Walks backward. Picks up toys from floor without falling. Pulls toy, pushes toy. Seats self in child's chair. Walks up and down stairs (hand-held.) Moves to music.	Builds tower of 3 small blocks. Puts 4 rings on stick. Places 5 pegs in pegboard. Turns pages 2 or 3 at a time. Scribbles. Turns knobs. Throws small ball. Paints with whole arm movement, shifts hands, makes strokes.	Responds correctly when asked **where**, when question is accompanied by gesture. Understands prepositions **on, in,** and **under.** Follows request to bring familiar object from another room. Understands simple phrases with key words (for example, **Open the door**, or **Get the ball**). Follows a series of 2 simple but related directions.	Says first meaningful word. Uses single words plus a gesture to ask for objects. Says successive single words to describe an event. Refers to self by name. Uses **my** or **mine** to indicate possession. Has vocabulary of about 50 words for important people, common objects, and the existence, nonexistence, and recurrence of objects and events (for example, **more** and **all gone**).

Cognitive Skills		Self-Help Skills	Social Skills
Follows moving object with eyes. Recognizes differences among people; responds to strangers by crying or staring. Responds to and imitates facial expressions of others. Responds to very simple directions (for example, raises arms when someone says, **Come,** and turns head when asked, **Where is daddy?**).	Imitates gestures and actions (for example, shakes head no, plays peek-a-boo, waves bye-bye). Puts small objects in and out of container with intention.	Feeds self cracker. Holds cup with two hands, drinks with assistance. Holds out arms and legs while being dressed.	Smiles spontaneously. Responds differently to strangers than to familiar people. Pays attention to own name. Responds to **no.** Copies simple actions of others.
Imitates actions and words of adults. Responds to words or commands with appropriate action (for example, **Stop that. Get down**). Is able to match two similar objects. Looks at storybook pictures with an adult, naming or pointing to familar objects on request (for example, **What is that? Point to the baby**).	Recognizes difference between **you** and **me.** Has very limited attention span. Accomplishes primary learning through own exploration.	Uses spoon, spilling little. Drinks from cup, one hand, unassisted. Chews food. Removes shoes, socks, pants, sweater. Unzips large zipper. Indicates toilet needs.	Recognizes self in mirror or picture. Refers to self by name. Plays by self; initiates own play. Imitates adult behaviors in play. Helps put things away.

Chart of Normal Development

	Motor Skills: Gross Motor Skills	Fine Motor Skills	Communication Skills: Understanding of Language	Spoken Language
24-36 Months	Runs forward well. Jumps in place, two feet together. Stands on one foot, with aid. Walks on tiptoe. Kicks ball forward.	Strings 4 large beads. Turns pages singly. Snips with scissors. Holds crayon with thumb and fingers, not fist. Uses one hand consistently in most activities. Imitates circular, vertical, horizontal strokes. Paints with some wrist action; makes dots, lines, circular strokes. Rolls, pounds, squeezes, and pulls clay.	Points to pictures of common objects when they are named. Can identify objects when told their use. Understands question forms **what** and **where.** Understands negatives **no, not, can't,** and **don't.** Enjoys listening to simple storybooks and requests them again.	Joins vocabulary words together in two-word phrases. Gives first and last name. Asks **what** and **where** questions. Makes negative statements (for example, **Can't open it**). Shows frustration at not being understood.
36-48 Months	Runs around obstacles. Walks on a line. Balances on one foot for 5 to 10 seconds. Hops on one foot. Pushes, pulls, steers wheeled toys. Rides (that is, steers and pedals) tricycle. Uses slide without assistance. Jumps over 15 cm. (6") high object, landing on both feet together. Throws ball overhead. Catches ball bounced to him or her.	Builds tower of 9 small blocks. Drives nails and pegs. Copies circle. Imitates cross. Manipulates clay materials (for example, rolls balls, snakes, cookies).	Begins to understand sentences involving time concepts (for example, **We are going to the zoo tomorrow**). Understands size comparatives such as **big** and **bigger.** Understands relationships expressed by **if ... then** or **because** sentences. Carries out a series of 2 to 4 related directions. Understands when told, **Let's pretend.**	Talks in sentences of three or more words, which take the form agent-action-object (**I see the ball**) or agent-action-location (**Daddy sit on chair**). Tells about past experiences. Uses "s" on nouns to indicate plurals. Uses "ed" on verbs to include past tense. Refers to self using pronouns **I** or **me.** Repeats at least one nursery rhyme and can sing a song. Speech is understandable to strangers, but there are still some sound errors.

Cognitive Skills		Self-Help Skills	Social Skills
Responds to simple directions (for example, **Give me the ball and the block. Get your shoes and socks**).	Can talk briefly about what he or she is doing.	Uses spoon, little spilling.	Plays near other children.
Selects and looks at picture books, names pictured objects, and identifies several objects within one picture.	Imitates adult actions (for example, housekeeping play).	Gets drink from fountain or faucet unassisted.	Watches other children, joins briefly in their play.
Matches and uses associated objects meaningfully (for example, given cup, saucer, and bead, puts cup and saucer together).	Has limited attention span; learning is through exploration and adult direction (as in reading of picture stories).	Opens door by turning handle.	Defends own possessions.
Stacks rings on peg in order of size.	Is beginning to understand functional concepts of familiar objects (for example, that a spoon is used for eating) and part/whole concepts (for example, parts of the body).	Takes off coat.	Begins to play house.
Recognizes self in mirror, saying, **baby**, or own name.		Puts on coat with assistance.	Symbolically uses objects, self in play.
		Washes and dries hands with assistance.	Participates in simple group activity (for example, sings, claps, dances).
			Knows gender identity.
Recognizes and matches six colors.	Has short attention span; learns through observing and imitating adults, and by adult instruction and explanation; is very easily distracted.	Pours well from small pitcher.	Joins in play with other children; begins to interact.
Intentionally stacks blocks or rings in order of size.	Has increased understanding of concepts of the functions and grouping of objects (for example, can put doll house furniture in correct rooms) part/whole (for example, can identify pictures of hand and foot as parts of body).	Spreads soft butter with knife.	Shares toys; takes turns with assistance.
Draws somewhat recognizable picture that is meaningful to child, if not to adult; names and briefly explains picture.		Buttons and unbuttons large buttons.	Begins dramatic play, acting out whole scenes (for example, traveling, playing house, pretending to be animals).
Asks questions for information: **why** and **how** questions requiring simple answers.		Washes hands unassisted.	
Knows own age.		Blows nose when reminded.	
Knows own last name.	Begins to be aware of past and present (for example, **Yesterday we went to the park. Today we go to the library**).	Uses toilet independently.	

Chart of Normal Development

	Motor Skills: Gross Motor Skills	Motor Skills: Fine Motor Skills	Communication Skills: Understanding of Language	Communication Skills: Spoken Language
48-60 Months	Walks backward toe-heel. Jumps forward 10 times, without falling. Walks up and down stairs alone, alternating feet. Turns somersault.	Cuts on line continuously. Copies cross. Copies square. Prints a few capital letters.	Follows three unrelated commands in proper order. Understands comparatives like pretty, prettier, and prettiest. Listens to long stories but often misinterprets the facts. Incorporates verbal directions into play activities. Understands sequencing of events when told them (for example, **First we have to go to the store, then we can make the cake, and tomorrow we will eat it**).	Asks **when, how,** and **why** questions. Uses modals like **can, will, shall, should,** and **might.** Joins sentences together (for example, **I like chocolate chip cookies and milk**). Talks about causality by using **because** and **so.** Tells the content of a story but may confuse facts.
60-72 Months	Runs lightly on toes. Walks on balance beam. Can cover 2 meters (6'6") hopping. Skips on alternate feet. Jumps rope. Skates.	Cuts out simple shapes. Copies triangle. Traces diamond. Copies first name. Prints numerals 1 to 5. Colors within lines. Has adult grasp of pencil. Has handedness well established (that is, child is left- or right-handed). Pastes and glues appropriately.	Demonstrates pre-academic skills.	There are few obvious differences between child's grammar and adult's grammar. Still needs to learn such things as subject-verb agreement, and some irregular past tense verbs. Can take appropriate turns in a conversation. Gives and receives information. Communicates well with family, friends, or strangers.

Cognitive Skills		Self-Help Skills	Social Skills
Plays with words: creates own rhyming words, says or makes up words having similar sounds. Points to and names 4 to 6 colors. Matches pictures of familiar objects (for example, shoe, sock, foot; apple, orange, banana). Draws a person with 2 to 6 recognizable parts, such as head, arms, legs; can name or match drawn parts to own body. Draws, names, and describes recognizable picture. Rote counts to 5, imitating adults.	Knows own street and town. Has more extended attention span; learns through observing and listening to adults as well as through exploration; is easily distracted. Has increased understanding of concepts of function, time, part/whole relationships. Function or use of objects may be stated in addition to names of objects. Time concepts are expanding. The child can talk about yesterday or last week (a long time ago), about today, and about what will happen tomorrow.	Cuts easy foods with a knife (for example, hamburger patty, tomato slice). Laces shoes.	Plays and interacts with other children. Dramatic play is closer to reality, with attention paid to detail, time, and space. Plays dress-up. Shows interest in exploring sex differences.
Retells story from picture book with reasonable accuracy. Names some letters and numerals. Rote counts to 10. Sorts objects by single characteristics (for example, by color, shape, or size — if the difference is obvious). Is beginning to use accurately time concepts of **tomorrow** and **yesterday.** Uses classroom tools (such as scissors and paints) meaningfully and purposefully.	Begins to relate clock time to daily schedule. Attention span increases noticeably; learns through adult instruction; when interested, can ignore distractions. Concepts of function increase as well as understanding of why things happen; time concepts are expanding into an understanding of the future in terms of major events (for example, **Christmas will come after two weekends**).	Dresses self completely. Ties bow. Brushes teeth unassisted. Crosses street safely.	Chooses own friend(s). Plays simple table games. Plays competitive games. Engages in cooperative play with other children involving group decisions, role assignments, fair play.

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